Determination of Public Land (Rangeland) Health for 64073 FELIX RIVER RANCH INC.

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on the assessments, it is my determination that the public land within the Felix River Ranch Allotment #64073 meets the (1) Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard will not be addressed.

/s/ T. R. KREAGER	09/29/2004
Assistant Field Manager	Date

Standards of Public Land Health
Evaluation of 64073 FELIX RIVER RANCH INC. Allotment
[06/30/2004]

The Roswell Field Office conducted rangeland health assessments on nine (9) study sites within the Felix River Ranch Inc. Allotment #64073. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
64073-CARLOS-F252	X			X			N/A		
64073-HOPKINS-F251 (*)	X			X			N/A		
64073-HOUSE-F247	X			X			N/A		
64073-MADE TANK-F248 (*)	X			X			N/A		
64073-N HOUSE-F249	X			X			N/A		
64073-PRICE HENRY-F250	X			X			N/A		
64073-W RIVER-F253	X			X			N/A		
64073-WEST-F254	X			X			N/A		
64073-WHITE-F255 (*)	X			X			N/A		

Twenty-two (22) indicators for Rangeland health were evaluated for the public land on the Felix River Ranch, allotment #64073. Ten (10) of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with previous long-term quantitative data gathered on 9 range trend plot/study site locations were utilized to determine the rangeland health of the public land within the allotment. These data collections which were initiated in the late 1970's/early 1980's are scheduled and performed by the Roswell Field Office every 5 years and include some or all of the following: ground and vegetative cover and composition, production, frequency and ecological condition.

The dry conditions occurring over the last several years have impacted this allotment and surrounding area. The allotment is located off Highway 13 south of Roswell, NM. Nine different rangeland evaluations were conducted on this allotment, each one corresponding to a different range trend plot study location/pasture. The sites consist of three SD-3 loamy, five SD-3 shallow and one CP-4 swale ecological site respectively.

The three SD-3 Loamy ecological sites are Price Henry, North House & House and are described here: Price Henry Pasture is exclusively on private land with an acreage of 161 or 71 hectares on a Bigetty-Pecos soil association. This association occurs on the channeled floodplains of the Rio Hondo and Rio Felix but is rarely flooded. Slopes are 0-1 percent on nearly level ground. Indicators with soil and hydrologic attributes rating Moderate are bareground, gullies and litter amount. Barground is now estimated at 60-70%, exceeding the upper end of the range expected. Long-term average however is 47% which falls within the expected range of the ESD at 40-50 percent. There is an active gully paralleling the road to the study. Although it is 100% naturally occurring, headcutting is active with some intermittent vegetation in the bed. There also is a dirt tank on the other side of the gully, but it's influences on the site are minimal. Litter amount is estimated at approximately 20% which is slightly less than the long-term average and falls at the bottom end of the range expected. Annual production is currently estimated at 300 lbs/ac or kg/ha which is about 1/2 of the long-term average and 1/3 of the ESD. This indicator with a biotic attribute rates Moderate. Cholla (Opuntia spinosa) and mesquite (Prosopis glandulosa) are observed but are less than scattered. Functional/structural groups also rate Moderate as there is an obvious absence of grama (Bouteloua spp.) grasses and muhly (Muhlenbergia spp.). Stolon formation and leaders from burrograss (Scleropogon brevifolius) and vine mesquite (Panicum obtusum) are extending along the ground. The tobosa (Pleuraphis mutica) is drought stricken however with some minor pedestaling occurring on the dead clumps. Physical and biological crusting is occurring but is not entirely uniform. These and all other indicators rate from Slight to Moderate to None to Slight.

North House Pasture rated the majority of indicators in the None to Slight to Slight to Moderate range. The site encompasses 503 acres/229 hectares just north of highway 13 on an (UA) - Upton-Atoka soil association which occurs on uplands west of the Pecos River with 0-5 percent slopes. No livestock were observed utilizing this pasture, but the drought effects are quite evident with mortality of the current vegetation at 20-30 percent. Indicators rating in the Moderate category are bareground, functional/structural groups,

litter amount and annual production. A current estimate of 60% for bareground slightly exceeds the upper end of the range expected and the long-term average of 54 percent. The number of functional/structural groups is reduced with the absence of grama grasses and virtually no shrub cover except for the drainage where javelinabush (Condalia spp.) is thriving. Litter amount is currently estimated at 10% and falls in the bottom end of the range espected. Annual production is 40% of potential and 50% of the long-term average of 400 lbs/ac or kg/ha. A phyical crust is in place with some breaks in uniformity. Infiltration appears adequate and is falling within the normal range of variability as are the remainder of the soil and hydrologic indicators.

House Pasture, also a Upton-Atoka soil association lies directly under a powerline. It encompasses an acreage of 614 or 279 hectares, rating the majority of indicators in the None to Slight to Slight to Moderate category. Indicators of concern in the Moderate range are pedestaling and/or terracettes, bareground, litter amount, annual production and invasive plants. Pedestaling is occurring in flow paths on the decadent tobosa clumps. Most other plants are not experiencing this degree of pedestaling. Bareground is currently estimated at 60 percent and exceeds the long-term average by 30% and slightly exceeds the ESD percentage of 40-50 percent. Litter percentage, now estimated at 20% is down from the long-term average of 31% and the ESD expected range of 25-30 percent. Annual production is estimated at less than 1/2 of the long-term average and significantly less than the potential. The one aspect of this site is the drainage bottom where water has settled and there is more production here. However the majority of the site is upland with less forage. The grama grasses are present however along with the shrub component of javelinabush (Condalia spp.) and skunkbush (Rhus spp.). Invasive plants are comprised of cholla scattered throughout with mesquite and yucca (Yucca spp.) in moderate amounts.

Made Tank Pasture is a CP-4 Swale ecological site on 734 acres/334 hectares in the middle of State land section 16. The soil phase is a (PH)-Pecos-Dev association occurring in valleys of the limestone hills and along drainages in the west and southwest part of the survey area. Slopes are 0-5 percent at elevations between 3,300 ft/1,000 m and 4,500 ft/1,363 m. The post and trend plot were relocated to make room for a drinking trough. Livestock are currently utilizing this pasture as the immediate area around the trough is barren with compacted excrement. This results in the compaction layer rating Slight to Moderate weakly restricting water movement and root penetration at the vicinity of the trough and surrounding area. The majority of indicators assessed rate in the Slight to Moderate category with parameters falling within the normal range of variability. Bareground rates Moderate to Extreme with an estimate of 50 percent. The long-term average for this site is 39% and the ESD percentage of 3% is significantly exceeded. Recent dry conditions have possibly attributed to this rating. Estimations were conducted by the Assessment Team at the immediate vicinity of the site as well as along the transect legs. Annual production is currently estimated at 400 lbs/ac or kg/ha and is 60% of the long-term average. The ESD calls for 1600 lbs/ac or kg/ha for normal years but the long-term average of 622 lbs/ac or kg/ha is more representative. Therefore this indicator rates Moderate. This depressional swale area is greener and has slightly more forage from an ocular standpoint than the surrounding area. Grasses like alkali sacaton (Sporobolus

airoides), vine mesquite, burrograss and tobosa occur in moderate amounts with shrubs like Apache plume (Fallugia paradoxia) and javelinabush occuring in the drainage. All other indicators rate None to Slight.

Hopkins Pasture, a SD-3 Shallow ecological site encompasses 1,443 acres/656 hectares. The soil phase is a (Tg)-Tencee-Upton complex on rolling hills on upland ridges west of the Pecos River. Slopes are 0-9 percent with elevations starting at 3,400 ft/1030 m. The majority of indicators rate Moderate as there exists moderate departures on a number of soil, hydrologic and biotic attributes. The following indicator rates Moderate, as pedestals and/or terracettes with slight active pedestaling on grass and shrubs, especially in the flow paths. These plants appear elevated well above ground level. Bareground now estimated at 50% with the addition of rock cover rates Moderate. Soil surface resistance to erosion is reduced throughout the site as the plant canopy and interspace soil samples readily melt using the soil site stability test. Horizon layers are degraded, exposing rock with reduced organic matter content. Soil surface loss or degradation rates Moderate. Plant community composition and distribution relative to infiltration and runoff rates Moderate also. The plant cover changes from a desert grassland with fibrous root systems to a shrub dominated taproot system, as well as allelopathic effects from creosote have negatively affected infiltration. The dry conditions also have contributed to the absence of grass species. The functional/structural groups now rating Moderate, have been reduced significantly as observed from long-term data which indicate blue and black grama occurring in the past is now missing. Yucca and especially creosote is encroaching and compromising this upland site's potential. Litter amount is down somewhat and rates Moderate, but the lack of production has attributed for this. Only 1/3 of the potential production currently is estimated. The annual production indicator rates Moderate to Extreme as a result. Invasive plants rates Moderate as creosote is scattered and appears to be increasing. The reproductive capability of perennial plants, most notably the reduced grass has been limited and can be attributed to the creosote. Physical and biological crusts rate Moderate as both are present but only in minor amounts.

West Pasture also a Tencee-Upton soil complex on a Shallow site encompasses 1,834 acrea/834 hectares. A majority of the indicators rate Slight to Moderate. The study area lies on a north facing slope and exhibits the characteristics of this aspect with higher production and additional soil moisture. Forb production is up here with an abundance of globemallow (Sphaeralcea spp.) and croton (Croton spp.). Bluegrama (Bouteloua gracilis), tobosa and burrograss are in abundance. A current estimation of 400-500 lbs/ac or kg/ha nearly matches the long-term average and ESD description. The dropseed and muhly (Muhlenbergia spp.) grass species are missing however. Functional/structural groups rate Moderate as a result. Shrubs like javelinabush, creosote, cholla and mesquite remain onsite as previuosly observed from previous monitoring. Invasive plants with mostly creosote scattered throughout rates Moderate. A generous layer of physical crust with some scattered biological can be observed in and out of the plant canopies with some breaks existing and rates Slight to Moderate. A mulch layer is holding moisture and is keeping this site in good condition considering the recent dry conditions. There is more than enough litter on the ground with little displacement and the estimated amount

exceeds what is expected. All other indicators fall within the normal range of variability with only slight deviations occurring.

White Pasture, a SD-3 Shallow ecological site is located on private land. The acreage is 509 acres/231 hectares on an Upton-Atoka soil association which occurs on uplands west of the Pecos River with 0-5 percent slopes. No livestock were observed at the time of assessment. Indicators of concern are bareground, pedestals and/or terracettes, plant community and distribution relative to infiltration and runoff, functional structural groups, annual production and reproductive capability of perennial plants which all rate Moderate. A Moderate to Extreme rating was assigned to invasive plants as creosote is common throughout and is encroaching. Baregound was estimated at 60 percent which reaches the upper end of the range expected and slightly exceeds the long-term average of 55 percent. Due to plant cover changes over time, the infiltration rates have been hindered somewhat and runoff is greater. This is evidenced by the sedimentation settling in the nearby drainage. The pedestaling on plants like tobosa and burrograss is occurring in the flow paths and a few exposed slopes. There are some dead grass clumps on which pedestals are forming as well as on rock. The grama, panicum and tridens grass components are missing and there is very little forb production even from the spring moisture. Functional/structural groups are missing from the site and slowly are being replaced by yucca (Yucca spp.) and creosote. Yucca is more abundant in and around the drainage. Roads and cattle trailing are contributing to the disturbance as they criss-cross through the area. Compaction layer rates at Slight to Moderate as a result. Annual production now at 60% of the long-term average, remains within the normal range with some moderate deviation. Production takes into account the drainage where there is naturally more opportunity for growth. Tobosa is especially abundant here. Seed head and tiller formation is down and livestock use appears to have hedged the plants to approximately a 2 to 3 inch stubble height. Reproductive capability of these perennial plants is limited not only from animal use but from the recent dry conditions which have restricted some of the vegetative growth. A uniform physical crust remains intact and is holding some upland soil in place. With a regression to a lower grade, there is some soil loss as erosion is occurring and continues to be part of the natural process here.

West River Pasture, also on private land with an Upton-Atoka soil association is mapped as a SD-3 Shallow ecological site. No livestock were observed at the time of assessment. A majority of the indicators assessed ranged from None to Slight to Slight to Moderate. Soil, hydrologic and biotic attributes all fell within the normal range of variability with only slight deviations. The exception is annual production which fell into the Moderate category. As with most of the sites on this allotment, the dry conditions have hindered current growth with 50 percent of the potential presently here. The seed source should remain within the soil substratum. This site exhibits most of the characteristics condusive to a loamy especially on the slopes leading into the adjacent drainage. The vegetation such as burrograss and tobosa remain upland with javelinabush and skunkbush on the bottoms and flourishing. Cover for muledeer (Odocoileus hemionus) and pronghorn (Antilocapra americana) is adequate at the bottom northwestward from the trend plot and topographical breaks also allow for prime habitat. A pasture fence separates this pasture

from North House and the public land tract to the north. Creosote is less than scattered and remains a very minor shrub component.

Carlos Pasture is a SD-3 Shallow ecological site with 643 acres/292 hectares. The soil phase is a (Lt) Lozier-Tencee complex mostly occuring in the west-central part of the survey area on low, limestone and indurated caliche hills on 0-9 percent slopes. This study site is located next to the allotment boundary fence separating this allotment from Indian Bluff. All three transect legs however remain within the allotment extending eastward. No livestock are currently within this pasture although an active gas pipeline intersects the pasture and one of the transects. It appears to be buried with some areas bermed and covered with rock and other materials. Most of the indicators assessed rate Slight to Moderate with most of the parameters falling within the normal range of variability. Litter movement is evident here with displacement and in concentrations around obstructions and depressions attributing to a Moderate rating. The production is higher here than would be indicated for a shallow site. Last year's growth produced approximately 400 lbs/ac or kg/ha which possibly produced this litter before dry conditions persisted and caused some mortality. Annual production rates Moderate with estimations at 60% of potential. Functional/structural groups also rates Moderate with the absence of gramas and dropseeds. Plants like zinnia (Zinnia spp.), dalea (Dalea formosa), catclaw acacia, cholla, range ratany (Krameria parvifolia) and creosote are indicative of a shallow site. Burrograss, tobosa and threeawn can be found in varied amounts. No skunkbush was observed however. This site has a bit more gravel and rock cover which may be tending to hold soil moisture better. Physical and biological crusts are evident throughout with some breaks in their uniformity.

Hydrology - Pasture Carlos - The litter amount rated in the moderate category. The decrease in litter amount suggests that the dry conditions have had a negative affect on the growing conditions which decreases the amount of litter that is produced. All other indicators rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary alluvial outcrop in the area. Limestone deposits of the San Andres Formation outcrop in the area.

Pasture Hopkins - The pedestals and/or terracette indicator rated as moderate. The recent dry conditions in combination with wind and water erosion has possibly decreased the amount of plant cover and possibly decreased infiltration into the soil which may have increased the amount of pedestaling of plants and rocks. The bareground indicator rated as moderate. The amount of bareground has possibly increased due to recent dry conditions and also wind and water erosion processes. Soil surface resistance to erosion rated in the moderate category. Organic matter is lacking on this site, but this is expected for an area that has a small amount of litter present. The soil surface loss or degradation has rated out as moderate. The recent dry conditions, decrease in the strength of physical crusts and or absence of soil crusts, wind velocity, surface dryness, and the decreased amount of surface plant cover has possibly increased soil surface loss to degradation. The plant community composition and distribution relative to infiltration and runoff rated as moderate. The recent dry conditions or drought conditions have possibly increased the amount of conversion of grassland to shrubland which has reduced infiltration and

increased runoff. The increase of all species and class would help increase water infiltration and decrease runoff. The litter amount rated in the moderate category. The decrease in litter amount suggests that the dry conditions have had a negative affect on the growing conditions which decreases the amount of litter that is produced. Additionally, the decrease in litter amount can have the effect of increasing the amount of bare soil. The physical/biological crust indicator rated as moderate. The soil crusts were only found in protected areas with a minor component in interspaces. Sand and gravel deposits of Quaternary terrace gravel outcrop in the area.

Pasture House - The pedestals and/or terracette indicator rated as moderate. The recent dry conditions in combination with wind and water erosion has possibly decreased the amount of plant cover and possibly decreased infiltration into the soil which may have increased the amount of pedestaling of plants and rocks. The bareground indicator rated as moderate. The amount of bareground has possibly increased due to recent dry conditions and also wind and water erosion processes. The litter amount rated in the moderate category. The decrease in litter amount suggests that the dry conditions have had a negative affect on the growing conditions which decreases the amount of litter that is produced. Additionally, the decrease in litter amount can have the effect of increasing the amount of bare soil. All other indicators rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary pediment and terrace gravel outcrop in the area.

Pasture Made Tank - The bareground indicator rated as moderate to extreme. The amount of bareground has possibly increased due to recent dry conditions and also wind and water erosion processes. All other indicators rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary pediment and terrace gravel outcrop in the area.

Pasture Price Henry - The bareground indicator rated as moderate. The amount of bareground has possibly increased due to recent dry conditions and also wind and water erosion processes. The gullies indicator rated moderate with active erosion and gully formation taking place. The increase in gullies has occurred because vegetation is very sparse and intermittent on slopes. The lack of vegetation has decreased infiltration and increased runoff. The litter amount rated in the moderate category. The decrease in litter amount suggests that the dry conditions have had a negative affect on the growing conditions which decreases the amount of litter that is produced. Additionally, the decrease in litter amount can have the effect of increasing the amount of bare soil. All other indicators rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary pediment and terrace gravel outcrop in the area.

Pasture W River - The rills, water flow patterns, pedestals and/or terracettes, bareground, gullies, wind scoured, blowouts, and or deposition areas, litter movement, soil surface resistance to erosion, soil surface loss or degradation, plant community composition and distribution relative to infiltration and runoff, compaction layer, litter amount and physical/chemical/biological crusts indicators have rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary alluvial, terrace, and pediment gravel outcrop in the area.

Pasture West - The rills, water flow patterns, pedestals and/or terracettes, bareground, gullies, wind scoured, blowouts, and or deposition areas, litter movement, soil surface resistance to erosion, soil surface loss or degradation, plant community composition and distribution relative to infiltration and runoff, compaction layer, litter amount, and physical/chemical/biological crusts indicators have rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary alluvial, terrace gravel and pediment gravel outcrop in the area. Sand, gravel, and mudstone deposits of the Gatuna Formation also outcrop in the area.

Pasture White - The pedestals and/or terracette indicator rated as moderate. The recent dry conditions in combination with wind and water erosion has possibly decreased the amount of plant cover and possibly decreased infiltration into the soil which may have increased the amount of pedestaling of plants and rocks. The bareground indicator rated as moderate. The amount of bareground has possibly increased due to recent dry conditions and also wind and water erosion processes. The plant community composition and distribution relative to infiltration and runoff rated as moderate. The recent dry conditions or drought has possibly increased the amount of conversion of grassland to shrubland which has reduced infiltration and increased runoff. The increase of all species and class would help increase water infiltration and decrease runoff. All other indicators rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary pediment and terrace gravel outcrop in the area.

Wildlife/biotic- West, White, Hopkins and House Pastures all lie south of highway 13 and are listed separate from the northern assessment areas. Evaluation of the integrity of the biotic community considered several indicators as attribute indices for the areas of interest. Biotic indicators are interrelated with several others, including soil/site stability, hydrologic function, and vegetation. Several indicators are singularly biotic and address the vegetative aspect of the ecological site description, such as annual production, invasive plants, and reproductive capability of perennial plants, as discussed above. Specifically, two biotic indicators fell within the Moderate to Extreme rating, invasive plants and annual production for White and Hopkins Pastures respectively. Creosote is the primary shrub of concern in White Pasture and annual production estimations of only 1/3 of the potential for Hopkins Pasture. Reproductive capability of perennial plants also rates Moderate for these two pastures. Considering present climate regimes, the annual production indicator can be expected to deviate from the normal range of variability. White and House pastures rated annual production Moderate. Structural/functional groups indicates Moderate deviations for West, White and Hopkins pastures as the grama grass components are reduced or even missing from most areas. Invasive plants rate at Moderate for West, and Hopkins pastures with creosote scattered throughout. Cholla is scattered throughout House pasture. Hopkins and House also rate litter amount Moderate as this falls in the bottom end of the range expected. Hopkins is the pasture most impacted by the dry conditions with soil surface resistance to erosion, soil surface loss, plant community composition relative to infiltration and runoff and phyical and biological crusts rating Moderate.

Carlos, West River, Price Henry, Made Tank and North House assessments all indicate annual production at 1/2 of potential and therefore rate Moderate. Considering present climate regimes, the annual production indicator can be expected to deviate from the normal range of variability. Structural/functional groups for Carlos, Price Henry and North House pastures also rate Moderate. All three experience the absence of the grama grass component which is indicative of most areas, regardless of whether the site represents a loamy or shallow soil phase for that particular ecological site. Litter amount for Price Henry and North House also deviates moderately and this may be attributed to the absence of standing biomass which ideally would have been produced the previous year.

Range condition (based on production) appears to have declined over the years, even when considering the drought conditions that has prevailed over the past several years. Browse species can still be found in the drainages that characterize the Felix River breaks. As the areas of interest fall within an ecotone between the Chihuahuan desert and grasslands biome, desert shrub components can be expected in these areas and has increased with declining range site conditions and overall reduced moisture over time, especially on shallow sites.

Wildlife Habitat and Population indicators rate Slight to Moderate, primarily for desert mule deer (Odocoileus hemionus), pronghorn and a variety of non-game terrestrial species. The composition of vegetation reflects the variety of range sites, current climatic conditions, e.g., drought for the past several years, the area being within an ecotone of the Chihuahuan desert and grasslands. Habitat conditions appear marginal due to the lack of ground cover and the increase in creosote, although the drainages found throughout these sites provide microhabitats for a variety of terrestrial species. Rangeland conditions must be closely monitored to detect any further downward trend, exclusive of the impacts of ongoing climatic conditions (drought). The potential to improve rangeland conditions exists especially when timed with adequate precipitation and vegetation reproduction. With respect to Special Status Species, none are known to occur in the area of interest at this time and the Habitat and Population indicators are, therefore, rated None to Slight.

It is the professional opinion of the Assessment Team that the public land within Felix River Ranch meets the Upland and Biotic standards. There are no public land Riparian issues present, therefore this standard was not addressed. See individual site notes and recommendations for further information regarding the assessments for this allotment.

The (*) indicates that the assessment had one or more indicator(s) rated moderate/extreme or extreme. These indicators are:

- Bare Ground
- Annual Production
- Invasive Plants

These indicators by themselves are not enough to rate the site as not meeting a standard but may warrant future monitoring.

Recommendations: A regular schedule of monitoring should continue for this allotment. The indicator of concern for all sites is annual production which is down significantly. The drought has impacted several biotic attributes with annual production, invasive plants and litter amount showing concern. The one site of immediate concern is Hopkins Pasture which deviated most as compared to the others. Hopkins site is located next to a bench where the drainage has probably played an important role in drawing moisture away and creating an environment condusive to invasives and drier conditions. Creosote eradication may be recommended for those areas where it has become scattered to common and has the potential to dominate and compromise a site's potential.

Favorable climatic conditions will help most sites recover. With prudent livestock stocking and timely precipitation events, all sites should show signs for improvement and exhibit additional vegetative ground cover to reduce erosion potential. A critical review should be performed if in the event, that oil and gas operations were to commence on this allotment. Some areas may need more recovery time than others and additional quantitative evaluations must be performed and give a more accurate representation..

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64073-CARLOS-F252			
Legal Land Desc	SWSW 24 0140S 0220E Meridian 23	Acreage	643
Ecosite	042CY025NM SHALLOW SD-3	Photo Taken	N
Watershed	13060007110 COTTONWOOD-WALNUT		
Observers	NAVARRO/MCGEE	Observation Date	06/28/2004
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	Lt	Soil Taxon Name	LOZIER
Texture Class	NM666 GRV-L	Soil Phase	LOZIER-TENCEE
Texture Modifier	NM666 COBBLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.47	NOAA Growing Season Precipitation	4.39
NOAA Avg Annual Precipitation	12.22	NOAA Avg Growing Season Precipitation	10.15
Disturbances and Animal Use:	Pipeline runs through the pasture from adjoining allotment. Two of the transects are intersected by this pipeline. No livestock were observed at the time of evaluation.		

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						

S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	
Comments:	Now at 50%.					
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement			X		
Comments:	Some litter up against obstructions.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Some melting.					
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	No gramas present, but there is ratany, burrograss, tobosa, creosote, threeawn, and croton.					
B	Plant Mortality/Decadence					X
Comments:						

H B	Litter Amount				X	
Comments:	Now about 10%.					
B	Annual Production			X		
Comments:	40% of potential.					
B	Invasive Plants				X	
Comments:	Creosote and cholla less than scattered.					
B	Reproductive Capability of Perennial Plants					X
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical and biological. Crusts are uniform except where the gas pipeline intersects the transects.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to	Moderate	Slight to Moderat	None to

			Extreme		e	Slight
S	Soil	0	0	0	7	3
H	Hydrologic	0	0	1	7	3
B	Biotic	0	0	2	6	5

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	1	10
Biotic		0	2	11

Site Notes: Plants found are zinnia, dalea, acacia, cholla, creosote, This is habitat for pronghorn and muledeer. Natural gas pipeline goes right through 2 of the transect legs and there is disturbance associated with this. Access was only obtained by climbing the fence from adjacent allotment. The gas pipeline gate was wired shut and not relocated. Site was seen from the ranch fenceline road on the opposite side.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64073-HOPKINS-F251			
Legal Land Desc	SWSE 4 0150S 0230E Meridian 23	Acreage	1443
Ecosite	042CY025NM SHALLOW SD-3	Photo Taken	Y
Watershed	13060007110 COTTONWOOD-WALNUT		
Observers	NAVARRO/MCGEE	Observation Date	07/06/2004
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	Tg	Soil Taxon Name	TENCEE
Texture Class	NM666 GR-L	Soil Phase	TENCEE-UPTON
Texture Modifier	NM666 GRAVELLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.47	NOAA Growing Season Precipitation	4.39
NOAA Avg Annual Precipitation	12.22	NOAA Avg Growing Season Precipitation	10.15
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						

S H	Pedestals and/or Terracettes			X		
Comments:	Pedestaling on shrubs and other grasses.					
S H	Bare Ground			X		
Comments:	50% now.					
S H	Gullies				X	
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:	Some displacement.					
S H B	Soil Surface Resistance to Erosion			X		
Comments:	Reduced in at least 1/2 the plant canopies.					
S H B	Soil Surface Loss or Degradation			X		
Comments:	Cobblestone, pebbles, gravel and small rock exposed.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff			X		
Comments:	Plant changes have negatively affected infiltration.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Creosote is encroaching. Snakeweed is numerous but the grass species is lacking. Mostly drought influenced.					
B	Plant Mortality/Decadence				X	
Comments:						

H B	Litter Amount			X		
Comments:	Now at 15%					
B	Annual Production		X			
Comments:	Now at 1/3.					
B	Invasive Plants			X		
Comments:	Creosote is scattered.					
B	Reproductive Capability of Perennial Plants			X		
Comments:	Very little seed and tiller production.					
S	Physical/Chemical/Biological Crusts			X		
Comments:	Physical and biological.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to	Moderate	Slight to Moderat	None to

			Extreme		e	Slight
S	Soil	0	0	5	3	2
H	Hydrologic	0	0	6	3	2
B	Biotic	0	1	6	3	3

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil	Approximately 1/2 of the soil attributes meet the standards. The other half fits in the Moderate category.	0	5	5
Hydrologic	Approximately 1/2 of the hydrologic attributes meet the standards. The other half fits in the Moderate category. This site is experiencing the drought conditions and is impacted more than most. Although there are a number of indicators in the Moderate category, the small rock, gravel, pebble and cobblestone are retaining the water holding capacity to prevent erosional processes from becoming worse.	0	6	5
Biotic	Approximately 1/2 of the biotic attributes meet the standards. The other half fits in the Moderate category. Although the site is compromised mainly due to drought, the potential to bounce back is present. This site needs rest and favorable precipitation events. The mulch layer for this shallow site is protecting the soil and not no much the crust. Litter is now at 15% which exceeds the expected range by 10 percent.	1	6	6

Site Notes: Very shallow site with suppressed production. Creosote is scattered but encroaching. The drought has impacted this site more than most. The crusting is minor with large breaks in continuity. The grama grasses are certainly lacking. There are a few

scattered yucca plants and the occasional acacia. Ground cover is mainly bare soil and gravel/rocks/cobble.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64073-HOUSE-F247			
Legal Land Desc	NESW 27 0140S 0230E Meridian 23	Acreage	614
Ecosite	042CY007NM LOAMY SD-3	Photo Taken	Y
Watershed	13060009040 FELIX		
Observers	NAVARRO/MCGEE	Observation Date	07/08/2004
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	UA	Soil Taxon Name	UPTON
Texture Class	NM666 L	Soil Phase	UPTON-ATOKA
Texture Modifier	NM666 GRAVELLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.47	NOAA Growing Season Precipitation	4.39
NOAA Avg Annual Precipitation	12.22	NOAA Avg Growing Season Precipitation	10.15
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes			X		
Comments	Pedestaling on tobosa decadent clumps.					

:						
S H	Bare Ground			X		
Comments:	Estimates at 50-60%					
S H	Gullies				X	
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:	Mosaic of vegetation-upland is sporadic; swale is ok.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	The plants onsite are black grama, blue grama, burrograss, tobosa, condalia, cholla, croton, skunkbush, acacia, milkweed, silverleaf nightshade, yucca, and mesquite. The diversity is here but the effects of the drought are still evident.					
B	Plant Mortality/Decadence				X	
Comments:						

H B	Litter Amount			X		
Comments:	Only about 20% is the estimate.					
B	Annual Production			X		
Comments:	Only about 400 lbs/ac or kg/ha is the current estimate.					
B	Invasive Plants			X		
Comments:	Cholla is scattered throughout.					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical crusts are seen with some breaks in continuity.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					
Part 3. Summary						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						
Standard Attribute		Extreme	Moderate to	Moderate	Slight to Moderat	None to

			Extreme		e	Slight
S	Soil	0	0	2	5	3
H	Hydrologic	0	0	3	6	2
B	Biotic	0	0	3	7	3

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	2	8
Hydrologic		0	3	8
Biotic		0	3	10

Site Notes: No livestock grazing at this time. The site is situated at the junction of a swale and upland. The diversity of vegetation is moreso than other sites evaluated.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64073-MADE TANK-F248			
Legal Land Desc	NESW 16 0140S 0230E Meridian 23	Acreage	734
Ecosite	070DY154NM SWALE CP-4	Photo Taken	Y
Watershed	13060009040 FELIX		
Observers	NAVARRO/MCGEE	Observation Date	06/28/2004
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	PH	Soil Taxon Name	PECOS
Texture Class	NM666 GR-L	Soil Phase	PECOS-DEV
Texture Modifier	NM666 SILTY CLAY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.47	NOAA Growing Season Precipitation	4.39
NOAA Avg Annual Precipitation	12.22	NOAA Avg Growing Season Precipitation	10.15
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments						

:						
S H	Bare Ground		X			
Comments:	Significantly exceeds the upper end of the range expected.					
S H	Gullies				X	
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion					X
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer				X	
Comments:	Especially around the drinking trough.					
B	Functional/Structural Groups				X	
Comments:	The gramas are missing but there is no evidence of 4-wing saltbush having occured here. Plenty of condalia, especially in and around the draw.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments	Percent litter falls within the expected range.					

:						
B	Annual Production			X		
Comments:	400-500 lbs/ac-kg/ha.					
B	Invasive Plants				X	
Comments:	Some mesquite less than scattered.					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical and some biological.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	1	0	6	3

H	Hydrologic	0	1	0	8	2
B	Biotic	0	0	1	8	4

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		1	0	9
Hydrologic		1	0	10
Biotic		0	1	12

Site Notes: The site is located in a swale with production up in estimations. The surrounding vicinity is greener and wetter than the the rest of the pasture. There is recent evidence of livestock use with a operational trough in place next to the trend plot. Just south is a substantial draw with condalia and other shrubs. The study site is located on state land.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64073-N HOUSE-F249			
Legal Land Desc	SWNW 28 0140S 0230E Meridian 23	Acreage	503
Ecosite	042CY007NM LOAMY SD-3	Photo Taken	Y
Watershed	13060009040 FELIX		
Observers	NAVARRO/MCGEE	Observation Date	06/24/2004
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	UA	Soil Taxon Name	UPTON
Texture Class	NM666 L	Soil Phase	UPTON-ATOKA
Texture Modifier	NM666 GRAVELLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.47	NOAA Growing Season Precipitation	4.39
NOAA Avg Annual Precipitation	12.22	NOAA Avg Growing Season Precipitation	10.15
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments						

:						
S H	Bare Ground			X		
Comments:	Estimations now at 60%.					
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Now we have burrograss, tobosa and croton.					
B	Plant Mortality/Decadence				X	
Comments:						
H B	Litter Amount				X	
Comments	Now the estimate is 40%.					

:						
B	Annual Production			X		
Comments:	Considering the dry conditions, the estimate of 250 lbs/ac or kg/ha is appropriate for this area.					
B	Invasive Plants					X
Comments:	Condalia only in the bottoms.					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical crusting is evident.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	6	3

H	Hydrologic	0	0	1	7	3
B	Biotic	0	0	2	7	4

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	1	9
Hydrologic		0	1	10
Biotic		0	2	11

Site Notes: Very dry conditions are impacting this site. the site is just north of Highway 13. No livestock are in this pasture at the moment.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64073-PRICE HENRY-F250			
Legal Land Desc	SENW 15 0140S 0230E Meridian 23	Acreage	161
Ecosite	042CY007NM LOAMY SD-3	Photo Taken	Y
Watershed	13060009040 FELIX		
Observers	NAVARRO/MCGEE	Observation Date	06/28/2004
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	BP	Soil Taxon Name	BIGETTY
Texture Class	NM666 L	Soil Phase	BIGETTY-PECOS
Texture Modifier	NM666 LOAM,SILT LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.47	NOAA Growing Season Precipitation	4.39
NOAA Avg Annual Precipitation	12.22	NOAA Avg Growing Season Precipitation	10.15
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	

Comments:						
S H	Bare Ground			X		
Comments:	Bareground is currently estimated at 60-70%					
S H	Gullies			X		
Comments:	Along 2-track there is a naturally occuring gully with some active headcutting. A dirt tank is situated away from the gully with little influence.					
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Very little melting.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Some horizon lost with exposed rock.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Now burrograss and tobosa with no gramas present.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount			X		

Comments:	Approaches the point where litter is almost at the bottom end of the range.					
B	Annual Production			X		
Comments:	1/2 of the potential is the current estimate.					
B	Invasive Plants				X	
Comments:	Cholla and mesquite less than scattered.					
B	Reproductive Capability of Perennial Plants				X	
Comments:	Stolons and leaders pf burrograss and vine mesquite/					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Biological and physical crusts seen with some breaks in continuity.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.l					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight

S	Soil	0	0	2	6	2
H	Hydrologic	0	0	3	6	2
B	Biotic	0	0	3	6	4

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	2	8
Hydrologic		0	3	8
Biotic		0	3	10

Site Notes: No livestock at the time of evaluation. The drought has impacted this site especially when the dried up grass has been reduced. the site is upland from Felix River with a 100% naturally occuring gully next to the 2-track. The site is located on private land.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64073-W RIVER-F253			
Legal Land Desc	NWSE 29 0140S 0230E Meridian 23	Acreage	
Ecosite	042CY025NM SHALLOW SD-3	Photo Taken	Y
Watershed	13060009040 FELIX		
Observers	NAVARRO/MCGEE	Observation Date	06/28/2004
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	UA	Soil Taxon Name	UPTON
Texture Class	NM666 GR-L	Soil Phase	UPTON-ATOKA
Texture Modifier	NM666 GRAVELLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.47	NOAA Growing Season Precipitation	4.39
NOAA Avg Annual Precipitation	12.22	NOAA Avg Growing Season Precipitation	10.15
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:	Stable and short.					
S H	Pedestals and/or Terracettes				X	
Comments						

:						
S H	Bare Ground				X	
Comments:	50% is the current estimate. Falls within range.					
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion					X
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	Now there is tobosa, burrograss, croton and threeawn.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments						

:						
B	Annual Production			X		
Comments:	1/3 is the current estimate					
B	Invasive Plants				X	
Comments:						
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Some physical crusting.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	5	5

H	Hydrologic	0	0	0	6	5
B	Biotic	0	0	1	7	5

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	0	11
Biotic		0	1	12

Site Notes: Pronghorn and muledeer in the vicinity. Skunkbush and condalia in the bottoms. Some creosote. The transect legs are headed toward the draw where there is a bit more shrub cover. Although the site is shallow, some of the charateristics indicate loamy. The site appears to be just off public and onto private.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64073-WEST-F254			
Legal Land Desc	NWNW 12 0150S 0220E Meridian 23	Acreage	1834
Ecosite	042CY025NM SHALLOW SD-3	Photo Taken	Y
Watershed	13060007110 COTTONWOOD-WALNUT		
Observers	NAVARRO/MCGEE	Observation Date	07/06/2004
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	Tg	Soil Taxon Name	TENCEE
Texture Class	NM666 GR-L	Soil Phase	TENCEE-UPTON
Texture Modifier	NM666 GRAVELLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.47	NOAA Growing Season Precipitation	4.39
NOAA Avg Annual Precipitation	12.22	NOAA Avg Growing Season Precipitation	10.15
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						

S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	
Comments:	Now at 50%.					
S H	Gullies				X	
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion					X
Comments:	Interspaces and canopy samples are holding together.					
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Creosote, burrograss and tobosa. Blue grama is present.					
B	Plant Mortality/Decadence				X	
Comments:						

H B	Litter Amount					X
Comments:						
B	Annual Production				X	
Comments:						
B	Invasive Plants			X		
Comments:	Creosote is scattered.					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical and biological crusts present.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to	Moderate	Slight to Moderat	None to

			Extreme		e	Slight
S	Soil	0	0	0	7	3
H	Hydrologic	0	0	0	7	4
B	Biotic	0	0	2	6	5

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	0	11
Biotic		0	2	11

Site Notes: Plants found on site are: zinnia, tobosa, burrograss, bluegrama, tridens, cholla, mesquite, croton and other forbs. No livestock at this time. The site is situated on top of a hill and appears to have most of the plant groups with exception of just a couple. The production is higher than the rest of the sites evaluated.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64073-WHITE-F255			
Legal Land Desc	NESE 6 0150S 0230E Meridian 23	Acreage	509
Ecosite	042CY025NM SHALLOW SD-3	Photo Taken	Y
Watershed	13060007110 COTTONWOOD-WALNUT		
Observers	NAVARRO/MCGEE	Observation Date	07/06/2004
County Soil Survey	NM666 CHAVES SOUTH	Soil Var/Taxad	
Soil Map Unit	UA	Soil Taxon Name	UPTON
Texture Class	NM666 GR-L	Soil Phase	UPTON-ATOKA
Texture Modifier	NM666 GRAVELLY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	6.47	NOAA Growing Season Precipitation	4.39
NOAA Avg Annual Precipitation	12.22	NOAA Avg Growing Season Precipitation	10.15
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						

S H	Pedestals and/or Terracettes			X		
Comments:	On tobosa especially.					
S H	Bare Ground			X		
Comments:	60%					
S H	Gullies				X	
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:	Some displacement.					
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff			X		
Comments:	Runoff is greater closer to the drainage as sedimentation is occuring at the delineation. The upland is still holding it's own.					
S H B	Compaction Layer				X	
Comments:	Two-tracks and cattle trailing attribute to the current rating.					
B	Functional/Structural Groups			X		
Comments:	Creosote and yucca are quite numerous.					
B	Plant Mortality/Decadence				X	
Comments:						

H B	Litter Amount				X	
Comments:						
B	Annual Production			X		
Comments:	1/2 of potential.					
B	Invasive Plants		X			
Comments:	Creosote is common.					
B	Reproductive Capability of Perennial Plants			X		
Comments:	Somewhat limited.					
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical crusts.					
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	None known to occur.					
B	Special Status Species Populations					X
Comments:	None known to occur.					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to	Moderate	Slight to Moderat	None to

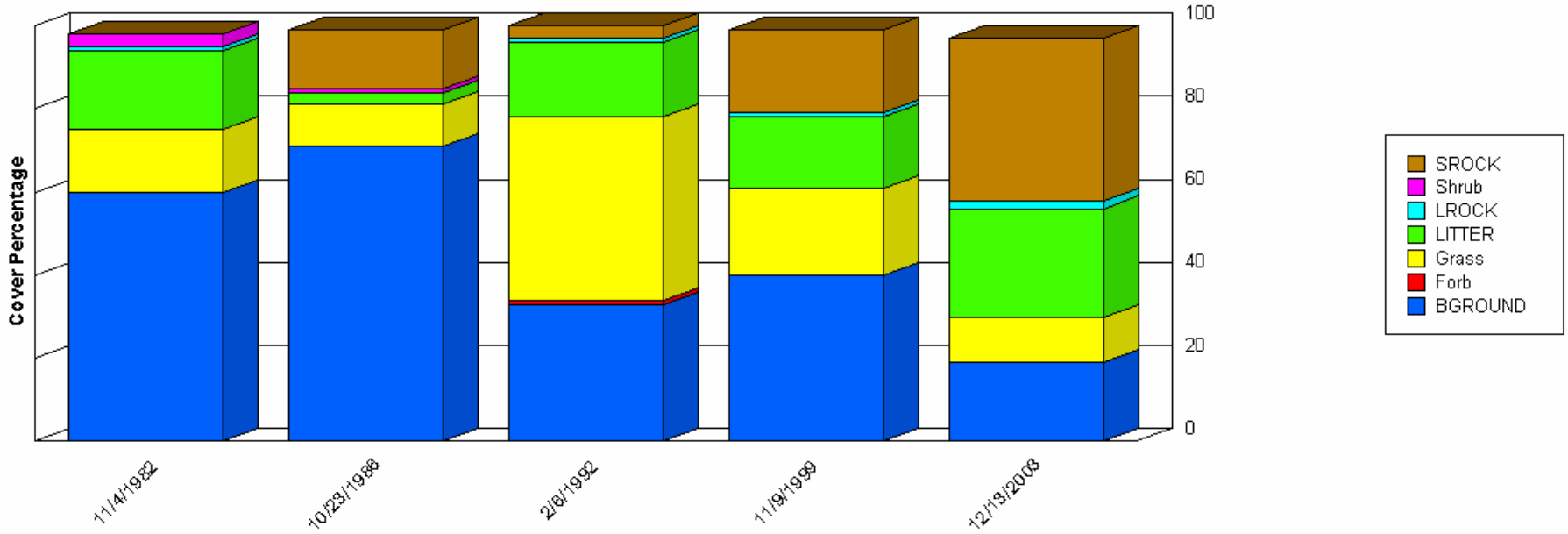
			Extreme		e	Slight
S	Soil	0	0	2	7	1
H	Hydrologic	0	0	3	7	1
B	Biotic	0	1	3	7	2

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	2	8
Hydrologic		0	3	8
Biotic		1	3	9

Site Notes: The site is probably representing an ecotone/transition between the draw bottom and upland where creosote is common. The draw bottom is mostly cholla and yucca. No livestock were observed at the time of evaluation. The study site is located in the half of the section that is private.

Ground Cover Trends



	11/4/1982	10/23/1986	2/6/1992	11/9/1999	12/13/2003
BGROUND	60.00	71.00	33.00	40.00	19.00
Forb	0.00	0.00	1.00	0.00	0.00
Grass	15.00	10.00	44.00	21.00	11.00
LITTER	19.00	3.00	18.00	17.00	26.00
LROCK	1.00	0.00	1.00	1.00	2.00
Shrub	3.00	1.00	0.00	0.00	0.00
SROCK	0.00	14.00	3.00	20.00	39.00

	11/4/1982	10/23/1986	2/6/1992	11/9/1999	12/13/2003
Total	98.00	99.00	100.00	99.00	97.00

Report Parameters

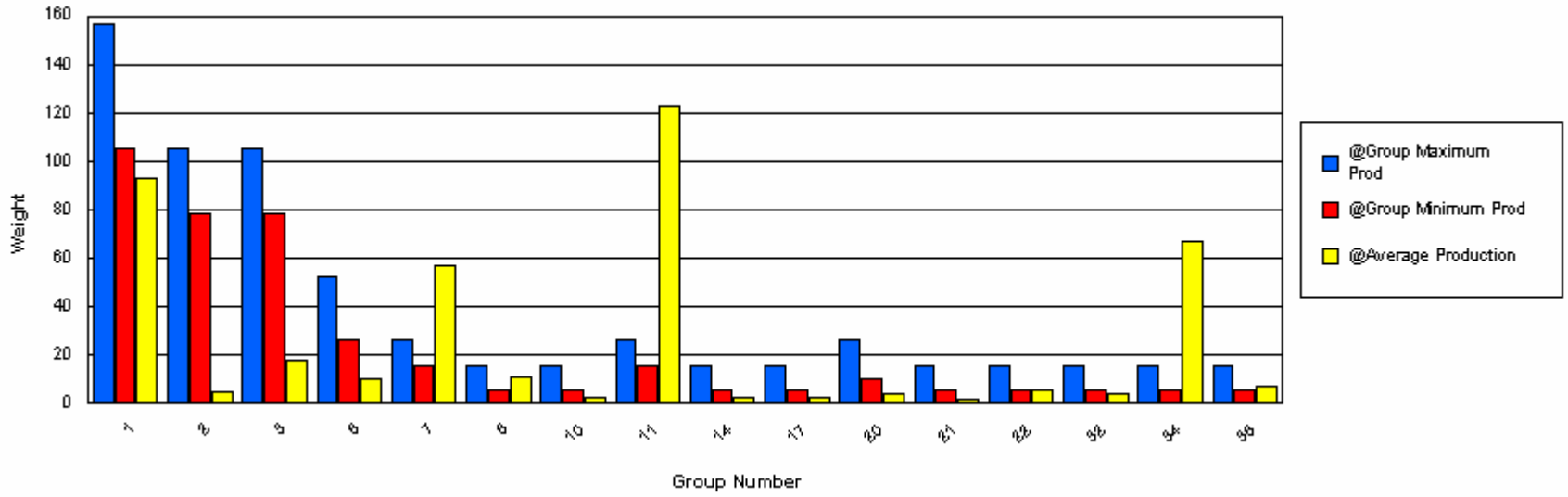
SITE NAME LIKE	64073-CARLOS-F252
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Functional / Structural Groups

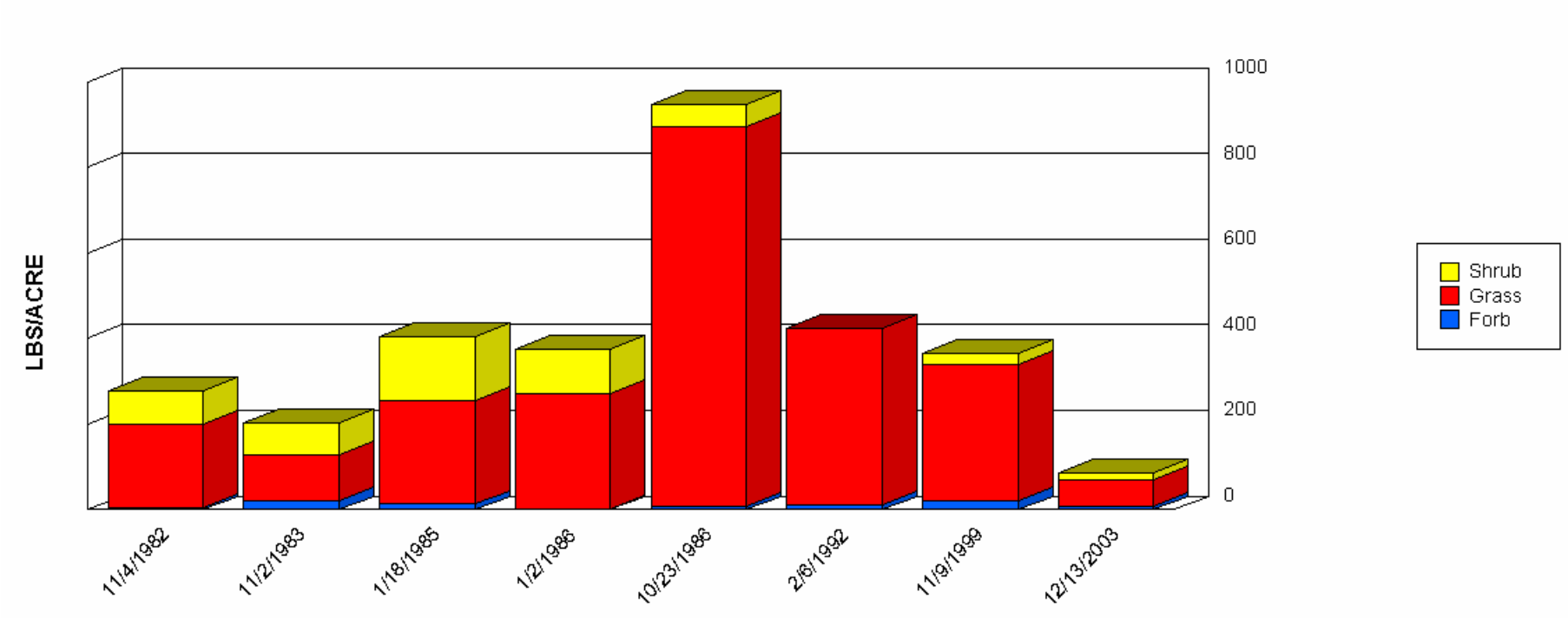
Report Parameters	
SITE NAME LIKE	64073-CARLOS-F252
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004
MIN LBS TO GRAPH	1
SELECTED ECOSITE	042CY025NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	105	157	0.00	236.28	92.92	76.80
2	Grass	BOCU	78	105	0.00	12.80	4.27	6.03
3	Grass	BOGR2	78	105	0.00	56.32	16.71	18.02
3	Grass	BOHI2	78	105	0.00	4.77	0.68	1.67
6	Grass	SPCR	26	52	0.00	29.92	10.11	9.71
7	Grass	TRMU	15	26	0.00	112.21	36.46	36.99
7	Grass	TRPI2	15	26	0.00	81.92	20.75	25.75
8	Grass	MUAR	5	15	0.00	43.00	10.42	13.84
10	Grass	ERPU8	5	15	0.00	6.72	2.03	2.38
11	Grass	ARIST	15	26	0.00	41.81	7.41	13.53
11	Grass	HIMU2	15	26	12.48	225.28	83.01	65.27
11	Grass	MUAR2	15	26	0.00	38.86	14.37	13.35
11	Grass	SCBR2	15	26	0.00	68.40	18.37	21.41
12	Grass	AAGG	0	5	0.00	0.62	0.31	0.31
14	Grass	ENDE	5	15	0.00	3.48	0.70	1.39
14	Grass	EROX	5	15	0.00	2.82	0.47	1.05
14	Grass	LYPH	5	15	0.00	0.81	0.27	0.38
14	Grass	MUTO2	5	15	0.00	3.12	0.52	1.16
14	Grass	PAHA	5	15	0.00	0.59	0.08	0.21
17	Forb	SPAN3	5	15	0.00	8.88	1.78	3.55
17	Forb	SPHAE	5	15	0.00	2.45	0.64	0.86
18	Forb	LESQU	5	15	0.00	0.49	0.16	0.23
19	Forb	CASSI	5	15	0.00	0.74	0.25	0.35
20	Forb	CROTO	10	26	0.00	10.62	3.10	3.46
20	Forb	VERBE	10	26	0.00	1.88	0.60	0.85
21	Forb	AAFF	5	15	0.00	4.25	1.22	1.48

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
21	Forb	AMARA	5	15	0.00	0.74	0.25	0.35
21	Forb	EUPHO	5	15	0.00	0.94	0.24	0.36
22	Forb	ERTE13	5	15	0.00	9.40	3.24	3.70
22	Forb	MELE2	5	15	0.00	1.12	0.32	0.50
22	Forb	PENA	5	15	0.00	1.16	0.55	0.48
22	Forb	PPFF	5	15	0.00	3.38	0.83	1.20
22	Forb	SOEL	5	15	0.00	3.48	0.58	1.30
32	Shrub	OPIM	5	15	0.67	2.67	1.67	1.00
32	Shrub	OPUNT	5	15	0.00	6.67	2.22	3.14
34	Shrub	GUSA2	5	15	12.96	149.60	67.18	46.12
36	Shrub	COCA17	5	15	0.00	20.17	6.72	9.51
36	Shrub	PPSS	5	15	0.00	1.88	0.31	0.70



Production Lbs/Acre Trends

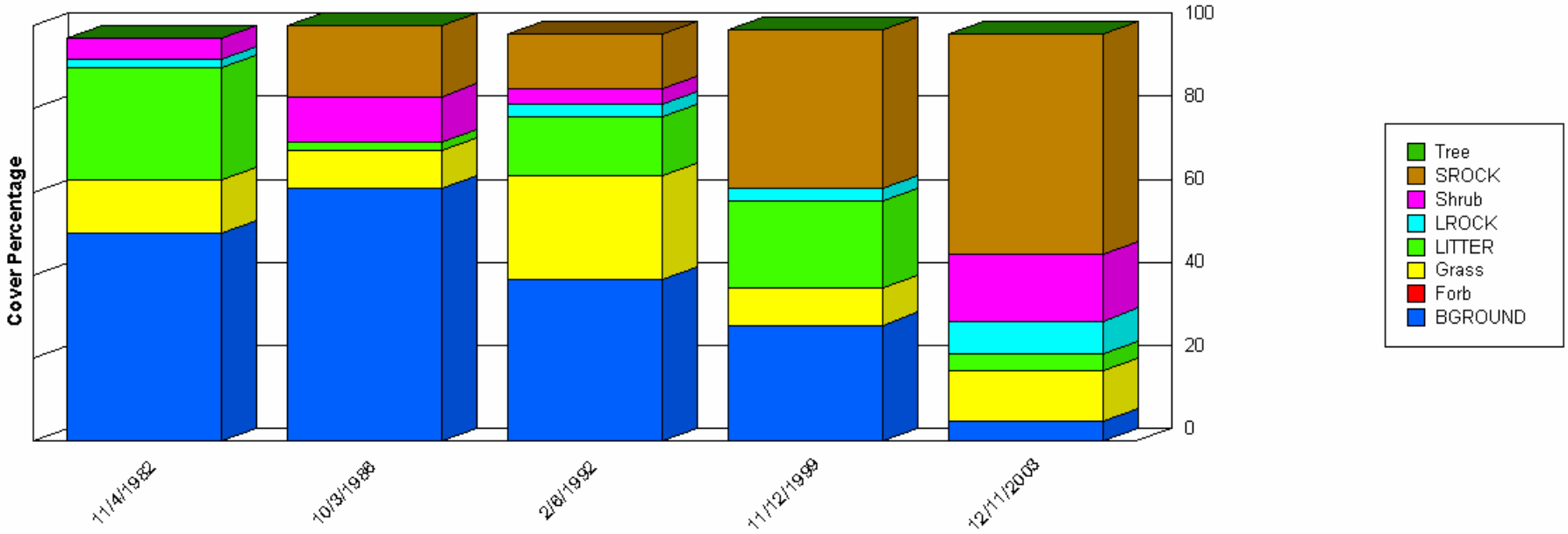


	11/4/1982	11/2/1983	1/18/1985	1/2/1986	10/23/1986	2/6/1992	11/9/1999	12/13/2003
Forb	**4.00**	**22.00**	**13.00**	**1.00**	**9.00**	**10.00**	**20.00**	**7.19**
Grass	**197.00**	**106.00**	**243.00**	**271.00**	**888.00**	**415.00**	**319.00**	**63.63**
Shrub	**78.00**	**76.00**	**150.00**	**105.00**	**51.00**	**0.00**	**28.00**	**15.63**
Total	**279.00**	**204.00**	**406.00**	**377.00**	**948.00**	**425.00**	**367.00**	**86.45**

Report Parameters

SITE NAME LIKE	64073-CARLOS-F252
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Ground Cover Trends



	11/4/1982	10/3/1986	2/6/1992	11/12/1999	12/11/2003
BGROUND	50.00	61.00	39.00	28.00	5.00
Forb	0.00	0.00	0.00	0.00	0.00
Grass	13.00	9.00	25.00	9.00	12.00
LITTER	27.00	2.00	14.00	21.00	4.00
LROCK	2.00	0.00	3.00	3.00	8.00
Shrub	5.00	11.00	4.00	0.00	16.00
SROCK	0.00	17.00	13.00	38.00	53.00

	11/4/1982	10/3/1986	2/6/1992	11/12/1999	12/11/2003
Tree	0.00	0.00	0.00	0.00	0.00
Total	97.00	100.00	98.00	99.00	98.00

Report Parameters

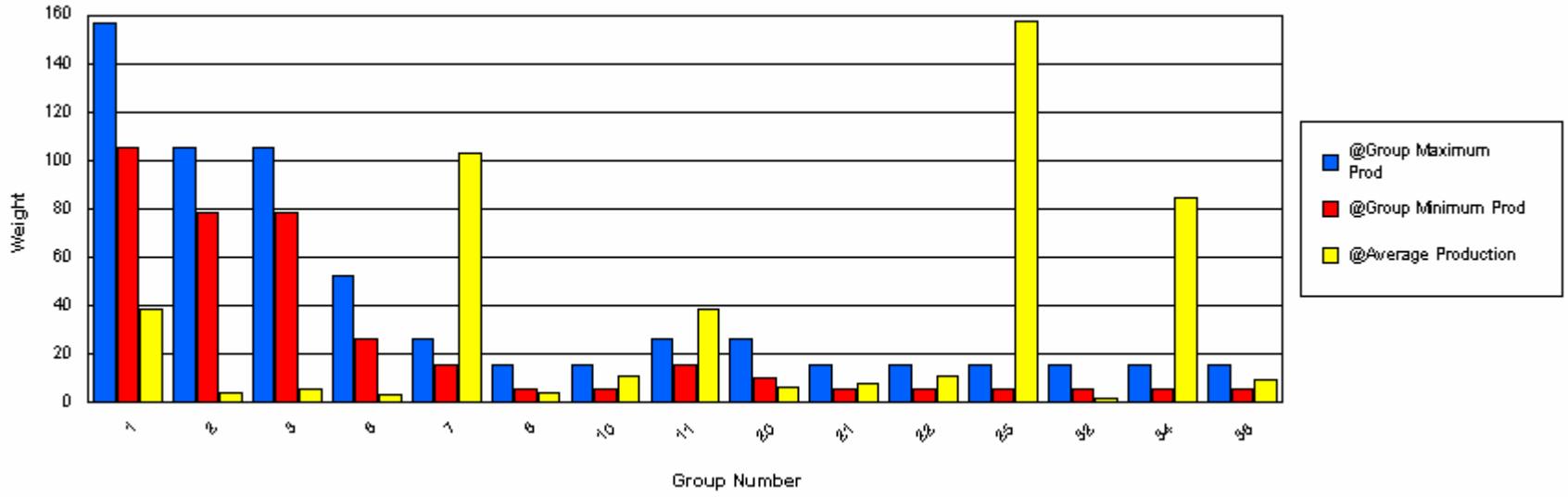
SITE NAME LIKE	64073-HOPKINS-F251
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Functional / Structural Groups

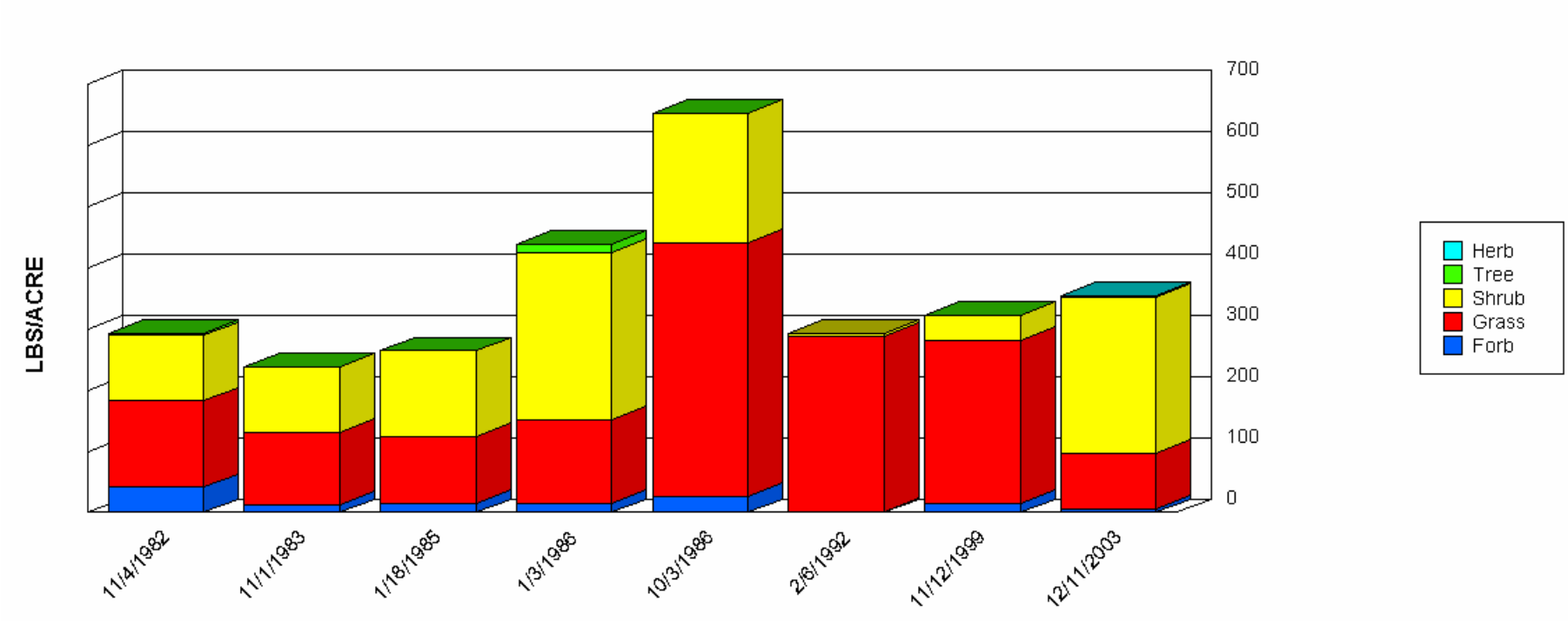
Report Parameters	
SITE NAME LIKE	64073-HOPKINS-F251
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004
MIN LBS TO GRAPH	1
SELECTED ECOSITE	042CY025NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	105	157	6.72	97.60	38.48	28.28
2	Grass	BOCU	78	105	0.00	8.30	4.15	4.15
3	Grass	BOGR2	78	105	0.00	7.25	2.05	2.48
3	Grass	BOHI2	78	105	0.00	12.00	3.00	5.20
6	Grass	SPCR	26	52	0.00	8.80	2.71	3.65
7	Grass	TRMU	15	26	9.71	146.77	60.98	46.23
7	Grass	TRPI2	15	26	0.00	104.96	41.88	37.49
8	Grass	MUAR	5	15	0.00	13.34	3.73	4.35
10	Grass	ERPU8	5	15	0.00	37.00	10.97	12.04
11	Grass	ARIST	15	26	0.00	35.41	7.82	12.03
11	Grass	HIMU2	15	26	0.00	38.81	11.65	12.56
11	Grass	MUAR2	15	26	0.00	11.00	2.50	3.79
11	Grass	SCBR2	15	26	0.00	44.15	16.76	13.78
12	Grass	AAGG	0	5	0.00	1.24	0.18	0.43
14	Grass	PAHA	5	15	0.00	1.09	0.55	0.55
14	Grass	TRAL2	5	15	0.00	1.86	0.27	0.65
20	Forb	CROTO	10	26	0.00	7.84	3.91	2.64
20	Forb	CRPO5	10	26	0.00	8.88	1.78	3.55
20	Forb	ERIOG	10	26	0.00	2.00	0.50	0.87
21	Forb	AAFF	5	15	0.76	9.62	4.54	3.41
21	Forb	COLDE	5	15	0.00	15.03	2.15	5.26
21	Forb	DYPA	5	15	0.00	4.77	0.68	1.67
21	Forb	DYPE	5	15	0.00	0.28	0.14	0.14
22	Forb	ANTEN	5	15	0.00	2.47	0.82	1.16
22	Forb	CODE3	5	15	0.00	2.24	0.56	0.97
22	Forb	DYPE2	5	15	0.00	3.70	1.23	1.74

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
22	Forb	ERTE13	5	15	0.00	11.00	2.69	3.95
22	Forb	HOGL2	5	15	0.00	2.47	0.82	1.16
22	Forb	MELE2	5	15	0.00	2.96	1.30	1.18
22	Forb	PENA	5	15	0.00	0.94	0.25	0.37
22	Forb	PPFF	5	15	1.31	4.94	3.12	1.82
25	Shrub	LADI2	5	15	0.00	60.80	27.45	26.34
25	Shrub	LATR2	5	15	36.48	223.56	130.02	93.54
32	Shrub	OPUNT	5	15	0.00	3.33	1.67	1.67
34	Shrub	GUSA2	5	15	0.00	224.84	84.18	77.23
36	Tree	ACGR	5	15	0.00	14.00	2.84	4.74
36	Shrub	COCA17	5	15	0.00	15.64	6.48	6.62
36	Shrub	DALEA	5	15	0.00	0.26	0.13	0.13



Production Lbs/Acre Trends

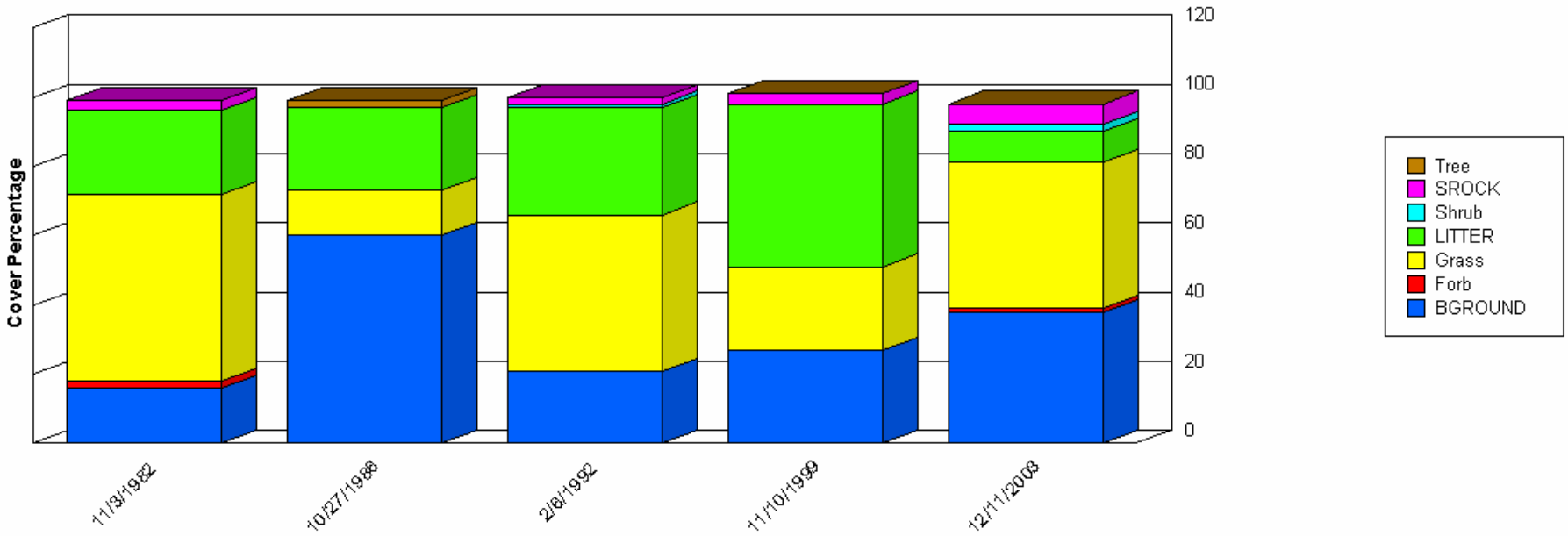


	11/4/1982	11/1/1983	1/18/1985	1/3/1986	10/3/1986	2/6/1992	11/12/1999	12/11/2003
Forb	**41.00**	**12.00**	**14.00**	**15.00**	**26.00**	**1.00**	**14.00**	**5.21**
Grass	**141.00**	**118.00**	**109.00**	**137.00**	**414.00**	**286.00**	**266.00**	**92.25**
Herb	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.40**
Shrub	**107.00**	**107.00**	**141.00**	**273.00**	**211.00**	**6.00**	**41.00**	**254.25**
Tree	**4.00**	**0.00**	**0.00**	**14.00**	**1.00**	**0.00**	**1.00**	**0.00**
Total	**293.00**	**237.00**	**264.00**	**439.00**	**652.00**	**293.00**	**322.00**	**354.11**

Report Parameters

SITE NAME LIKE	64073-HOPKINS-F251
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Ground Cover Trends



	11/3/1982	10/27/1986	2/6/1992	11/10/1999	12/11/2003
BGROUND	16.00	60.00	21.00	27.00	38.00
Forb	2.00	0.00	0.00	0.00	1.00
Grass	54.00	13.00	45.00	24.00	42.00
LITTER	24.00	24.00	31.00	47.00	9.00
Shrub	0.00	0.00	1.00	0.00	2.00
SROCK	3.00	0.00	2.00	3.00	6.00
Tree	0.00	2.00	0.00	0.00	0.00

	11/3/1982	10/27/1986	2/6/1992	11/10/1999	12/11/2003
Total	99.00	99.00	100.00	101.00	98.00

Report Parameters

SITE NAME LIKE	64073-HOUSE-F247
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

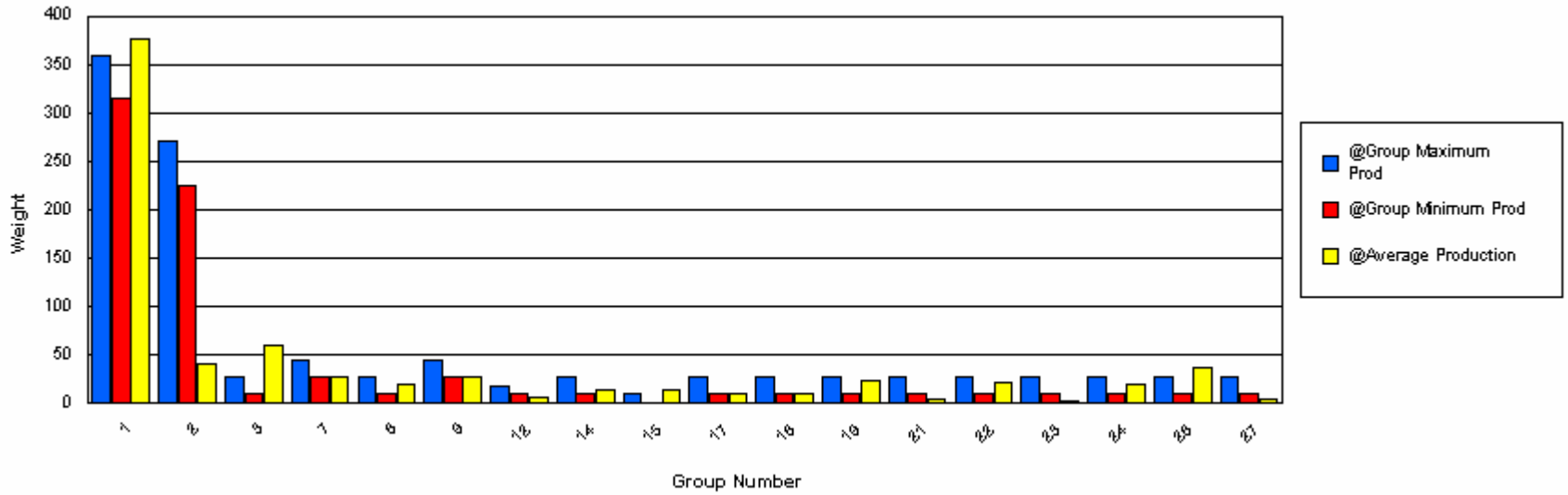
Functional / Structural Groups

Report Parameters	
SITE NAME LIKE	64073-HOUSE-F247
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004
MIN LBS TO GRAPH	1
SELECTED ECOSITE	042CY007NM

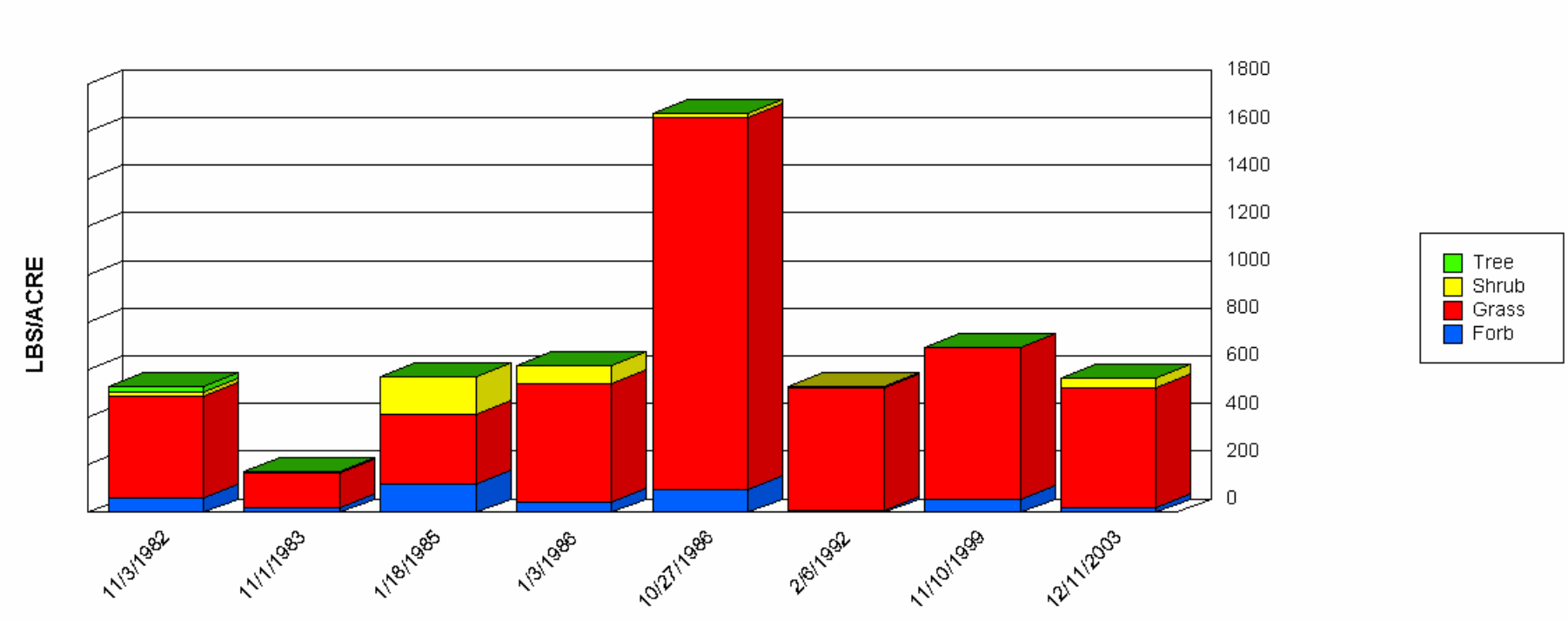
Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	HIMU2	315	360	53.04	822.36	352.80	216.04
1	Grass	SCBR2	315	360	0.00	54.41	23.46	22.66
2	Grass	BOER4	225	270	0.00	8.00	4.15	3.10
2	Grass	BOGR2	225	270	1.24	104.53	35.35	35.93
3	Grass	BOCU	9	27	0.00	206.93	58.84	63.85
4	Grass	SELO2	9	27	0.00	0.83	0.12	0.29
7	Grass	ARIST	27	45	0.00	34.13	7.46	11.54
7	Grass	SPCR	27	45	0.00	103.40	19.94	34.46
8	Grass	PAOB	9	27	0.00	51.00	18.93	17.95
9	Grass	MUAR	27	45	0.00	26.22	8.40	8.75
9	Grass	MUAR2	27	45	0.00	61.64	10.63	19.71
9	Grass	MURI	27	45	0.00	32.40	8.10	14.03
12	Grass	PAHA	9	18	0.00	24.33	4.89	8.04
14	Grass	TRMU	9	27	0.00	82.35	14.29	25.86
15	Grass	TRPI2	0	9	0.00	38.00	13.12	15.43
16	Grass	BOSI2	9	27	0.00	3.00	0.43	1.05
17	Grass	BUDA	9	27	3.56	13.35	8.45	4.89
17	Grass	ERPU8	9	27	0.00	3.00	0.84	1.04
17	Grass	SPFL2	9	27	0.00	2.19	0.31	0.77
18	Forb	SPAN3	9	27	0.00	8.88	1.78	3.55
18	Forb	SPHAE	9	27	0.00	55.25	7.75	18.01
19	Forb	CROTO	9	27	0.00	19.73	7.06	6.19
19	Forb	CRPO5	9	27	0.00	19.24	3.85	7.70
19	Forb	DEPI	9	27	0.00	0.37	0.05	0.13
19	Forb	LESQU	9	27	0.00	1.16	0.19	0.43
19	Forb	PENA	9	27	0.00	8.75	3.04	2.94

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
19	Forb	SELO	9	27	0.00	4.48	1.12	1.94
19	Forb	SENEC	9	27	0.00	38.48	7.70	15.39
20	Forb	ASTRA	9	27	0.00	0.55	0.08	0.19
20	Forb	ERIGE2	9	27	0.00	0.49	0.16	0.23
21	Forb	ERTE13	9	27	0.00	10.63	3.65	4.59
22	Forb	AAFF	9	27	0.94	46.00	18.06	15.64
22	Forb	BRASS2	9	27	0.00	0.94	0.16	0.35
22	Forb	CIRSI	9	27	0.00	6.60	0.94	2.31
22	Forb	SUAED	9	27	0.00	0.62	0.09	0.22
22	Forb	TRAGO	9	27	0.00	5.87	0.84	2.05
22	Forb	ZINNI	9	27	0.00	1.26	0.21	0.47
23	Forb	AMBRO	9	27	0.00	5.55	1.33	2.16
24	Forb	ARDA	9	27	0.00	9.39	3.13	4.42
24	Forb	CIOC2	9	27	0.00	20.25	10.13	10.13
24	Forb	LEER	9	27	0.00	8.88	1.78	3.55
24	Forb	MELE2	9	27	0.00	1.33	0.42	0.59
24	Forb	PPFF	9	27	0.65	1.04	0.85	0.19
24	Forb	SOEL	9	27	0.00	12.74	1.97	4.19
26	Shrub	GUSA2	9	27	0.00	151.36	31.75	51.45
26	Shrub	OPIM	9	27	0.00	8.00	1.60	3.20
26	Shrub	OPUNT	9	27	0.00	9.33	3.11	4.40
27	Tree	ACGR	9	27	0.00	22.40	3.31	7.80
27	Shrub	ARLU2	9	27	0.00	2.04	0.68	0.96

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

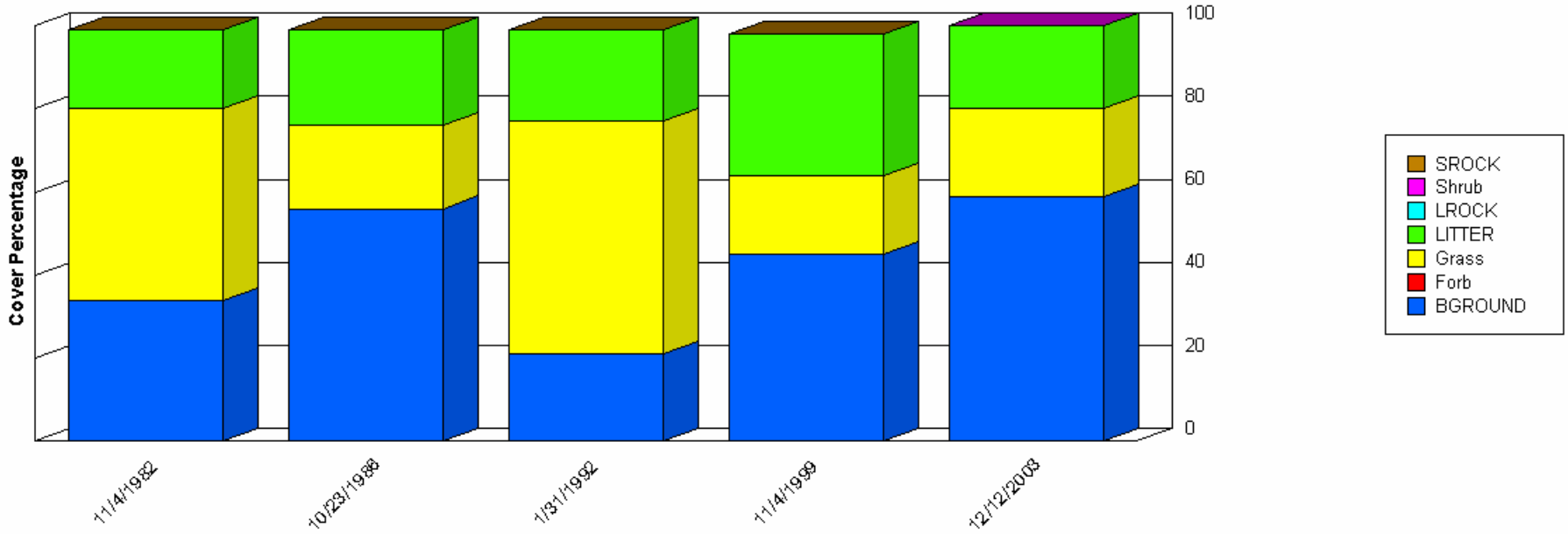


	11/3/1982	11/1/1983	1/18/1985	1/3/1986	10/27/1986	2/6/1992	11/10/1999	12/11/2003
Forb	**59.00**	**22.00**	**121.00**	**45.00**	**99.00**	**10.00**	**53.00**	**17.90**
Grass	**431.00**	**146.00**	**293.00**	**495.00**	**1,562.00**	**515.00**	**640.00**	**506.53**
Shrub	**18.00**	**3.00**	**159.00**	**77.00**	**14.00**	**2.00**	**0.00**	**40.00**
Tree	**22.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**0.00**
Total	**530.00**	**171.00**	**573.00**	**617.00**	**1,675.00**	**527.00**	**694.00**	**564.43**

Report Parameters

SITE NAME LIKE	64073-HOUSE-F247
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Ground Cover Trends



	11/4/1982	10/23/1986	1/31/1992	11/4/1999	12/12/2003
BGROUND	34.00	56.00	21.00	45.00	59.00
Forb	0.00	0.00	0.00	0.00	0.00
Grass	46.00	20.00	56.00	19.00	21.00
LITTER	19.00	23.00	22.00	34.00	20.00
LROCK	0.00	0.00	0.00	0.00	0.00
Shrub	0.00	0.00	0.00	0.00	0.00
SROCK	0.00	0.00	0.00	0.00	0.00

	11/4/1982	10/23/1986	1/31/1992	11/4/1999	12/12/2003
Total	99.00	99.00	99.00	98.00	100.00

Report Parameters

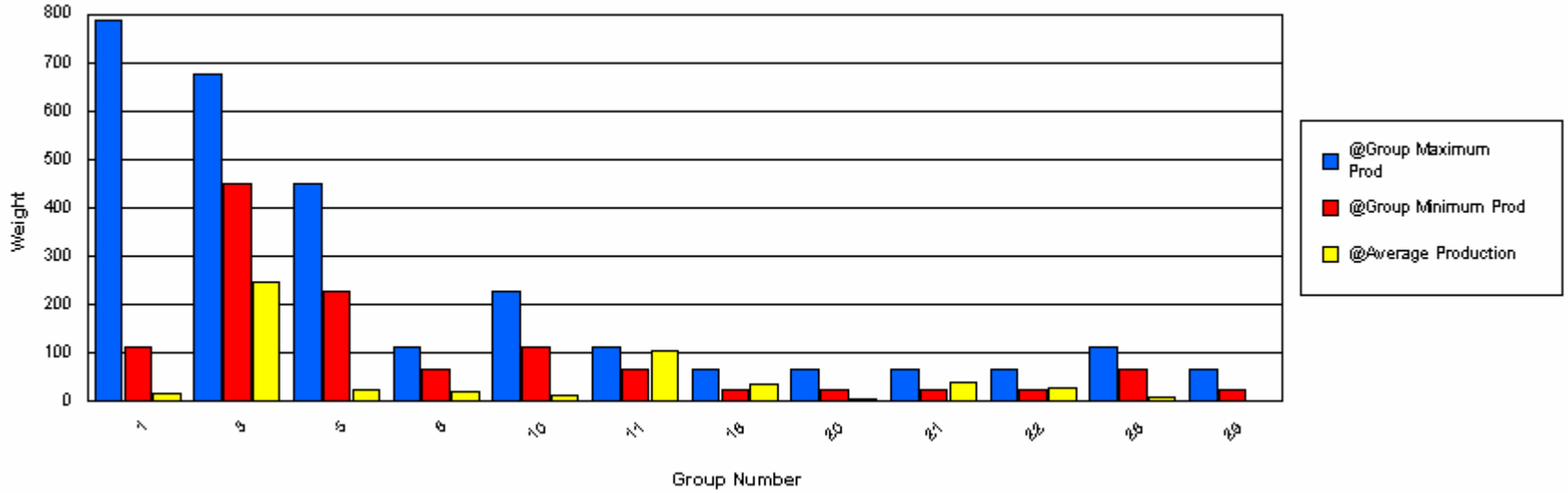
SITE NAME LIKE	64073-MADE TANK-F248
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Functional / Structural Groups

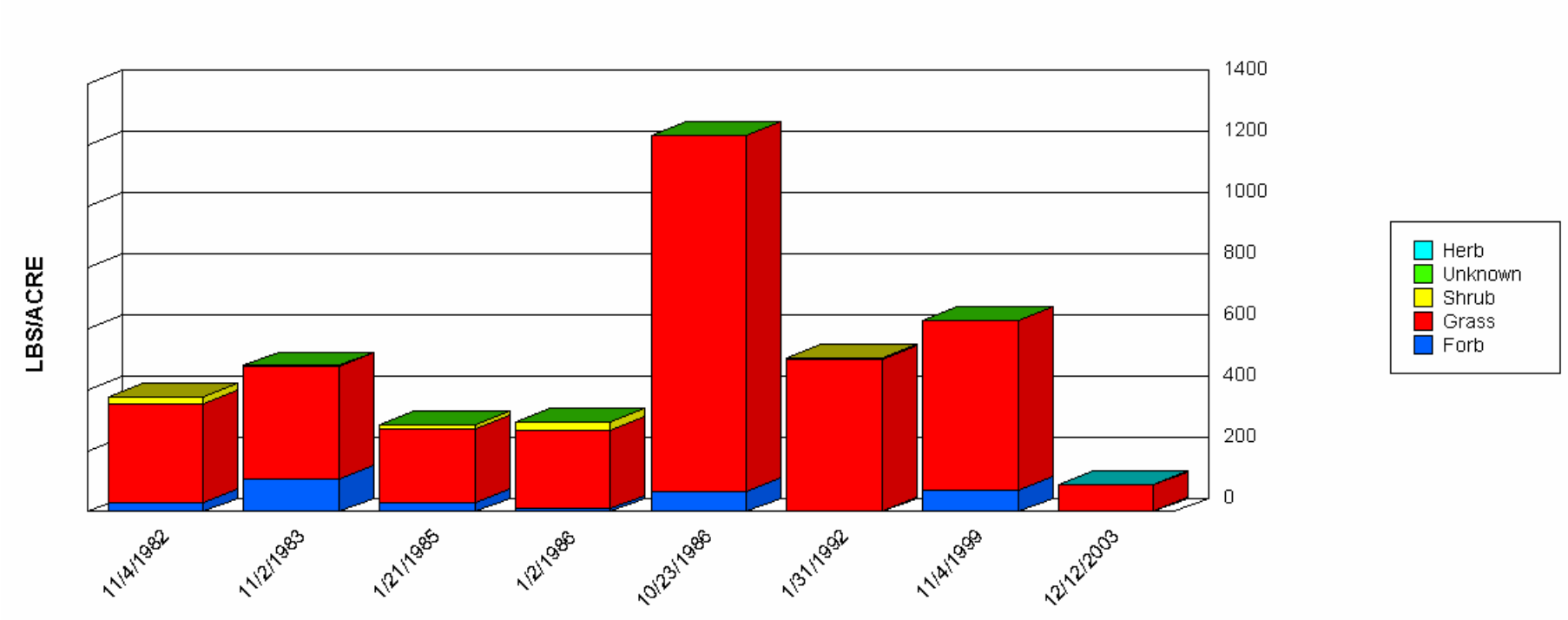
Report Parameters	
SITE NAME LIKE	64073-MADE TANK-F248
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004
MIN LBS TO GRAPH	1
SELECTED ECOSITE	070DY154NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOGR2	112	787	0.00	44.73	14.91	21.09
3	Grass	HIMU2	450	675	68.57	501.60	246.66	128.66
5	Grass	PAOB	225	450	0.00	80.27	24.50	27.32
8	Grass	ARIST	67	112	0.00	88.32	17.99	27.94
9	Grass	SPCR	67	112	0.00	3.20	0.91	1.31
10	Grass	PAHA	112	225	0.00	42.13	13.20	16.76
11	Grass	MURE	67	112	0.00	18.25	9.13	9.13
11	Grass	SCBR2	67	112	8.90	341.44	92.94	100.59
12	Grass	ERAGR	67	112	0.00	1.76	0.59	0.83
12	Grass	LYPH	67	112	0.00	0.41	0.14	0.19
15	Grass	ERPU8	0	0	0.00	2.83	0.40	0.99
16	Grass	BOER4	22	67	0.00	3.36	0.85	1.29
16	Grass	MUAR	22	67	0.00	87.40	20.64	27.43
16	Grass	MUAR2	22	67	0.00	4.06	2.03	2.03
16	Grass	TRMU	22	67	0.00	35.84	8.40	13.72
16	Grass	TRPI2	22	67	0.00	11.00	2.77	3.90
19	Forb	VERBE	22	45	0.00	5.64	0.94	2.10
20	Forb	PENA	22	67	0.00	12.60	2.50	4.24
21	Forb	AAFF	22	67	0.00	24.00	10.68	9.76
21	Forb	AMARA	22	67	0.00	3.95	1.32	1.86
21	Forb	BRASS2	22	67	0.00	3.76	0.63	1.40
21	Forb	DEPI	22	67	0.00	2.82	0.47	1.05
21	Forb	EUPHO	22	67	0.00	3.21	1.07	1.51
21	Unknown	MARRU	22	67	0.00	0.94	0.16	0.35
21	Forb	PHLO	22	67	0.00	1.47	0.21	0.51
21	Forb	XADR	22	67	0.00	48.69	24.34	24.34

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
21	Forb	XASP2	22	67	0.00	1.31	0.65	0.65
22	Forb	AMBRO	22	67	0.00	0.37	0.05	0.13
22	Forb	CROTO	22	67	0.00	24.17	9.60	8.23
22	Forb	CRPO5	22	67	0.00	2.96	0.59	1.18
22	Forb	ERTE13	22	67	0.00	1.10	0.41	0.47
22	Forb	LEER	22	67	0.00	1.12	0.28	0.48
22	Forb	LESQU	22	67	0.00	4.64	0.77	1.73
22	Forb	MELE2	22	67	0.00	55.44	9.24	20.66
22	Forb	PPFF	22	67	0.00	0.94	0.16	0.35
22	Forb	SOEL	22	67	0.00	1.83	0.61	0.86
22	Forb	SPHAE	22	67	0.00	13.20	3.58	4.58
22	Forb	ZINNI	22	67	0.00	5.04	0.84	1.88
23	Forb	CIRSI	0	0	0.00	0.99	0.33	0.47
28	Shrub	GUSA2	67	112	0.00	24.38	8.77	9.84
29	Shrub	OPLE	22	67	0.00	6.00	1.50	2.60



Production Lbs/Acre Trends

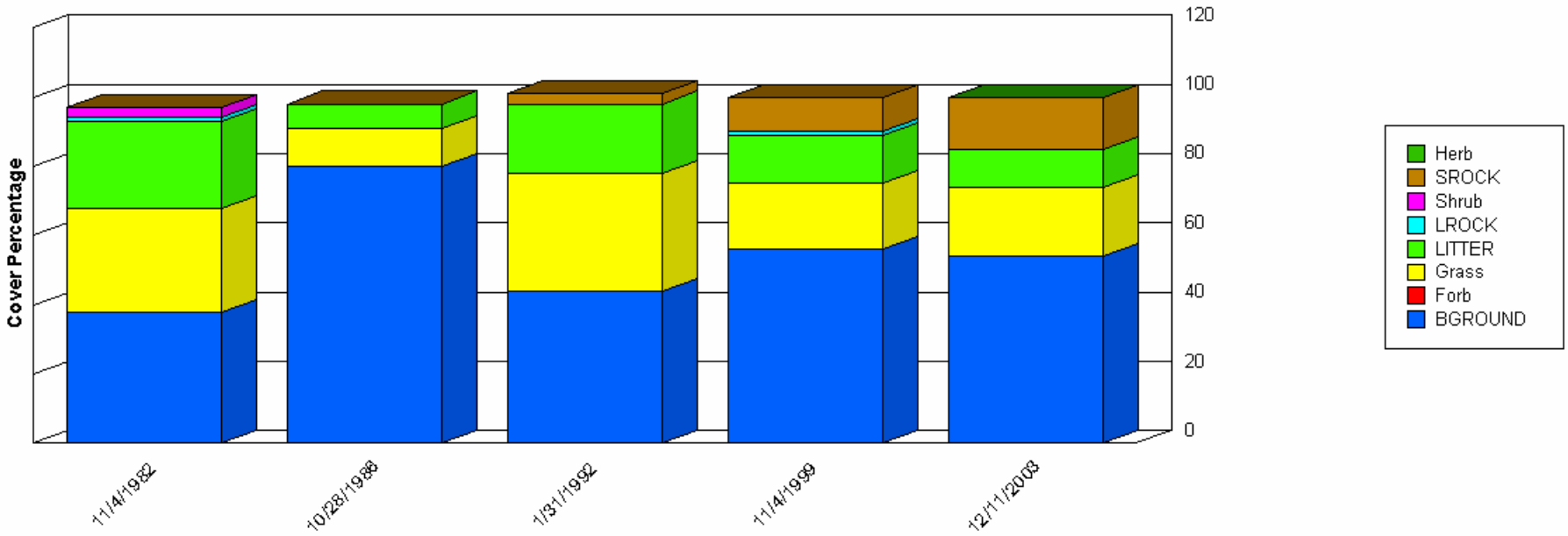


	11/4/1982	11/2/1983	1/21/1985	1/2/1986	10/23/1986	1/31/1992	11/4/1999	12/12/2003
Forb	**28.00**	**108.00**	**30.00**	**9.00**	**66.00**	**2.00**	**70.00**	**4.20**
Grass	**325.00**	**366.00**	**239.00**	**257.00**	**1,167.00**	**497.00**	**556.00**	**82.16**
Herb	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.40**
Shrub	**24.00**	**3.00**	**14.00**	**26.00**	**0.00**	**3.00**	**0.00**	**0.00**
Unknown	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total	**377.00**	**478.00**	**283.00**	**292.00**	**1,233.00**	**502.00**	**626.00**	**88.76**

Report Parameters

SITE NAME LIKE	64073-MADE TANK-F248
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Ground Cover Trends



	11/4/1982	10/28/1986	1/31/1992	11/4/1999	12/11/2003
BGROUND	38.00	80.00	44.00	56.00	54.00
Forb	0.00	0.00	0.00	0.00	0.00
Grass	30.00	11.00	34.00	19.00	20.00
Herb	0.00	0.00	0.00	0.00	0.00
LITTER	25.00	7.00	20.00	14.00	11.00
LROCK	1.00	0.00	0.00	1.00	0.00
Shrub	3.00	0.00	0.00	0.00	0.00

	11/4/1982	10/28/1986	1/31/1992	11/4/1999	12/11/2003
SROCK	0.00	0.00	3.00	10.00	15.00
Total	97.00	98.00	101.00	100.00	100.00

Report Parameters

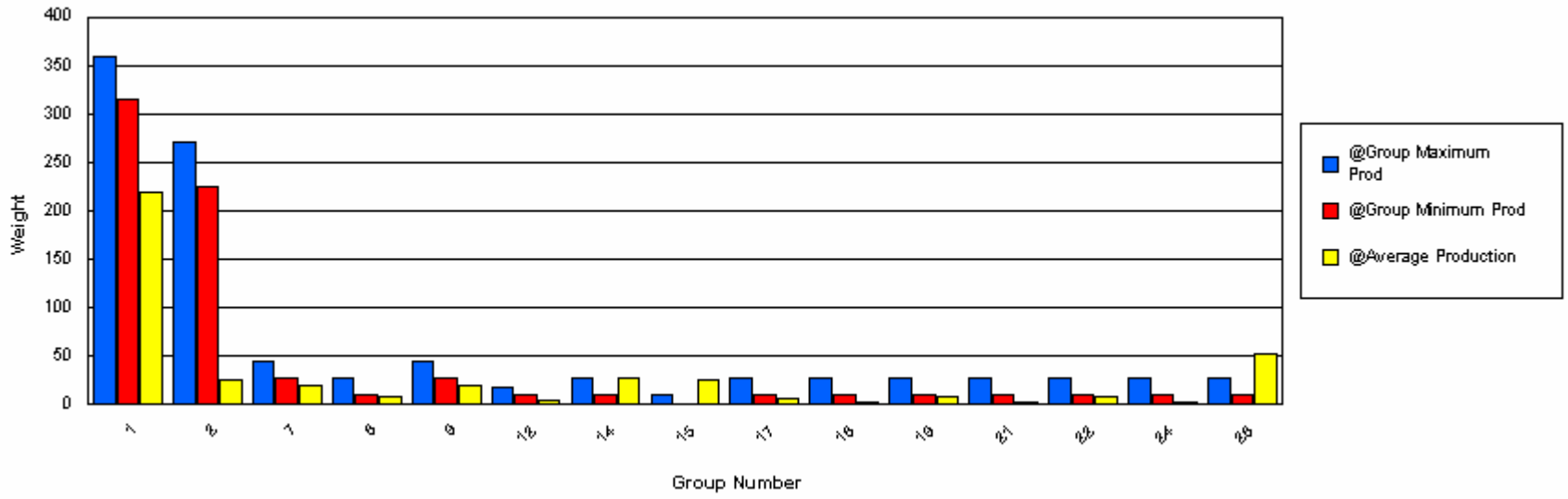
SITE NAME LIKE	64073-N HOUSE-F249
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Functional / Structural Groups

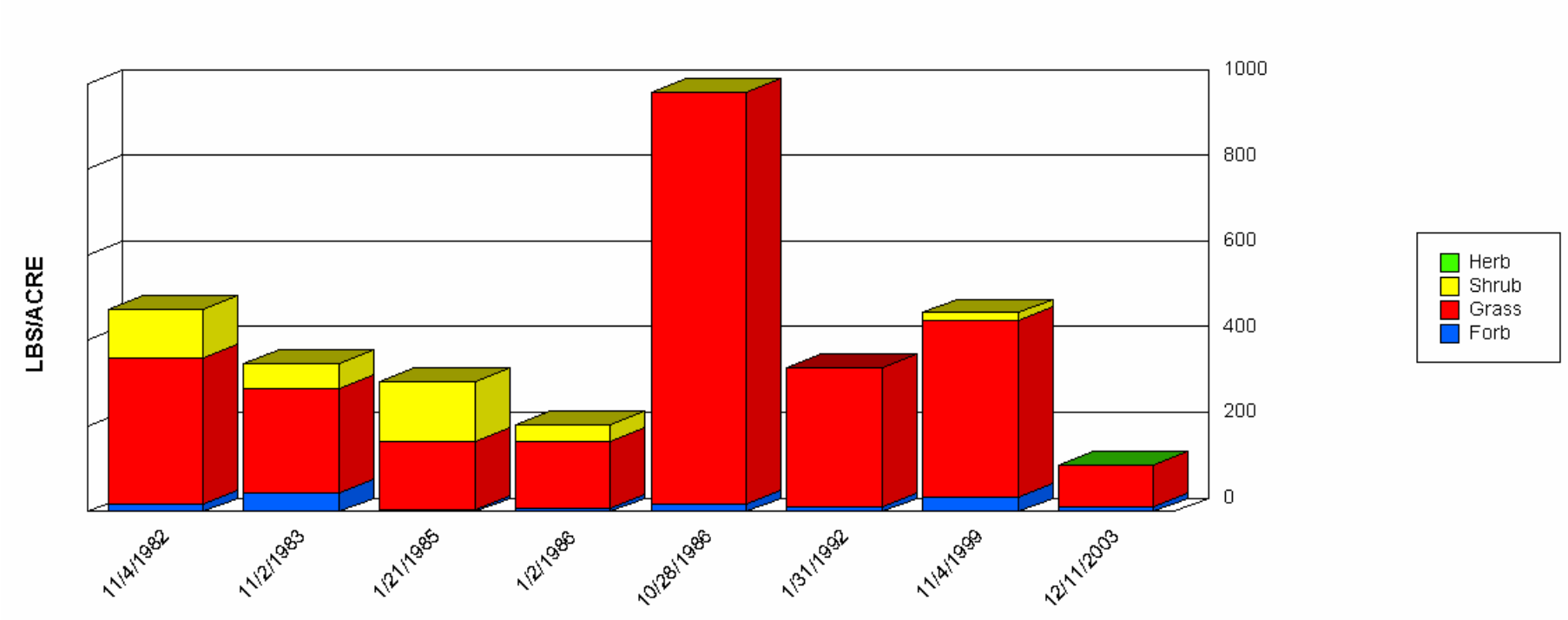
Report Parameters	
SITE NAME LIKE	64073-N HOUSE-F249
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004
MIN LBS TO GRAPH	1
SELECTED ECOSITE	042CY007NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	HIMU2	315	360	50.40	491.92	161.05	133.21
1	Grass	SCBR2	315	360	18.26	143.73	58.36	36.27
2	Grass	BOER4	225	270	0.00	53.00	21.78	23.84
2	Grass	BOGR2	225	270	0.00	16.80	3.67	5.99
4	Grass	SELO2	9	27	0.00	0.67	0.10	0.23
7	Grass	ARIST	27	45	0.00	39.16	14.16	13.87
7	Grass	SPCR	27	45	0.00	31.24	5.89	9.69
8	Grass	PAOB	9	27	0.00	30.24	7.18	10.68
9	Grass	MUAR	27	45	0.00	42.00	13.89	14.35
9	Grass	MUAR2	27	45	0.00	16.10	5.17	6.49
12	Grass	PAHA	9	18	0.00	13.92	3.56	5.59
14	Grass	TRMU	9	27	0.00	124.59	27.12	38.39
15	Grass	TRPI2	0	9	0.00	92.59	24.13	31.55
16	Grass	AAGG	9	27	0.00	4.00	0.57	1.40
17	Grass	ERPU8	9	27	0.00	6.00	1.85	2.42
17	Grass	MUTO2	9	27	0.00	2.03	0.68	0.96
17	Grass	PPGG	9	27	0.00	8.53	2.84	4.02
18	Forb	SPHAE	9	27	0.00	3.67	0.73	1.26
18	Forb	VERBE	9	27	0.00	1.88	0.31	0.70
19	Forb	CROTO	9	27	0.00	22.03	6.20	6.75
19	Forb	DEPI	9	27	0.00	0.73	0.10	0.26
19	Forb	LESQU	9	27	0.00	2.32	0.46	0.82
19	Forb	PENA	9	27	0.00	5.22	0.89	1.80
19	Forb	SELO	9	27	0.00	2.96	0.81	1.16
21	Forb	ERTE13	9	27	0.00	7.52	2.13	2.58
21	Forb	HOGL2	9	27	0.00	0.74	0.25	0.35

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
22	Forb	AAFF	9	27	0.00	11.11	3.88	3.38
22	Forb	ABUTI	9	27	0.00	1.47	0.21	0.51
22	Forb	AMARA	9	27	0.00	0.99	0.33	0.47
22	Forb	CIRSI	9	27	0.00	11.60	2.76	4.48
22	Forb	ZINNI	9	27	0.00	1.26	0.21	0.47
23	Forb	AMBRO	9	27	0.00	1.88	0.32	0.65
24	Forb	EUPHO	9	27	0.00	0.37	0.05	0.13
24	Forb	MELE2	9	27	0.00	1.16	0.19	0.43
24	Forb	PPFF	9	27	0.00	1.88	0.64	0.73
24	Forb	SOEL	9	27	0.00	8.12	1.23	2.82
26	Shrub	GUSA2	9	27	0.00	139.04	52.11	50.77
26	Shrub	OPUNT	9	27	0.00	0.88	0.22	0.35
27	Shrub	COCA17	9	27	0.00	4.68	0.78	1.74



Production Lbs/Acre Trends

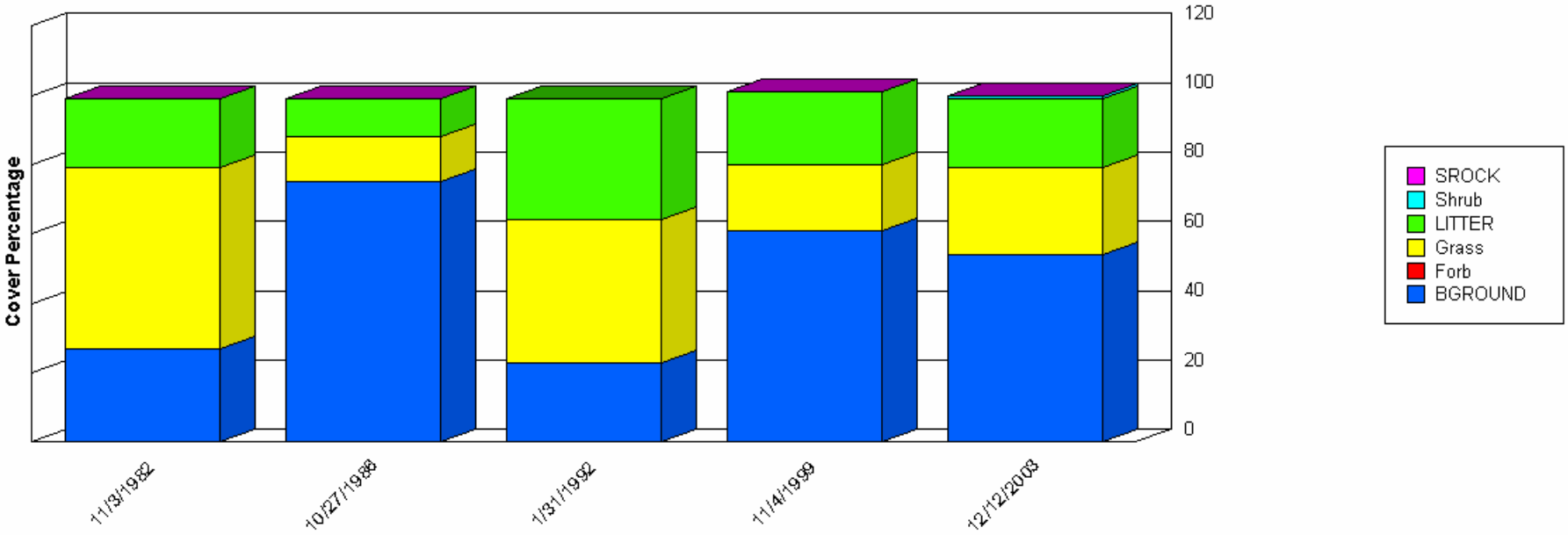


	11/4/1982	11/2/1983	1/21/1985	1/2/1986	10/28/1986	1/31/1992	11/4/1999	12/11/2003
Forb	**18.00**	**44.00**	**5.00**	**7.00**	**19.00**	**10.00**	**34.00**	**11.88**
Grass	**341.00**	**244.00**	**159.00**	**156.00**	**960.00**	**326.00**	**413.00**	**96.00**
Herb	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.96**
Shrub	**114.00**	**59.00**	**139.00**	**41.00**	**1.00**	**0.00**	**18.00**	**0.00**
Total	**473.00**	**347.00**	**303.00**	**204.00**	**980.00**	**336.00**	**465.00**	**108.84**

Report Parameters

SITE NAME LIKE	64073-N HOUSE-F249
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Ground Cover Trends



	11/3/1982	10/27/1986	1/31/1992	11/4/1999	12/12/2003
BGROUND	27.00	75.00	23.00	61.00	54.00
Forb	0.00	0.00	0.00	0.00	0.00
Grass	52.00	13.00	41.00	19.00	25.00
LITTER	20.00	11.00	35.00	21.00	20.00
Shrub	0.00	0.00	0.00	0.00	1.00
SROCK	0.00	0.00	0.00	0.00	0.00
Total	99.00	99.00	99.00	101.00	100.00

Report Parameters

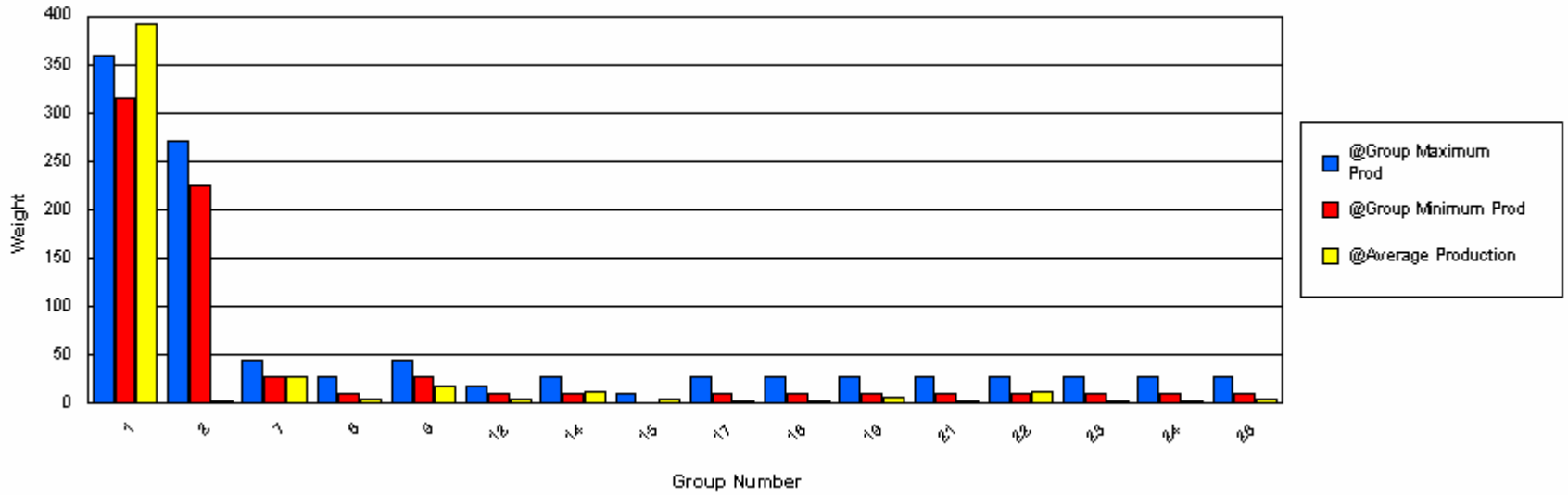
SITE NAME LIKE	64073-PRICE HENRY-F250
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Functional / Structural Groups

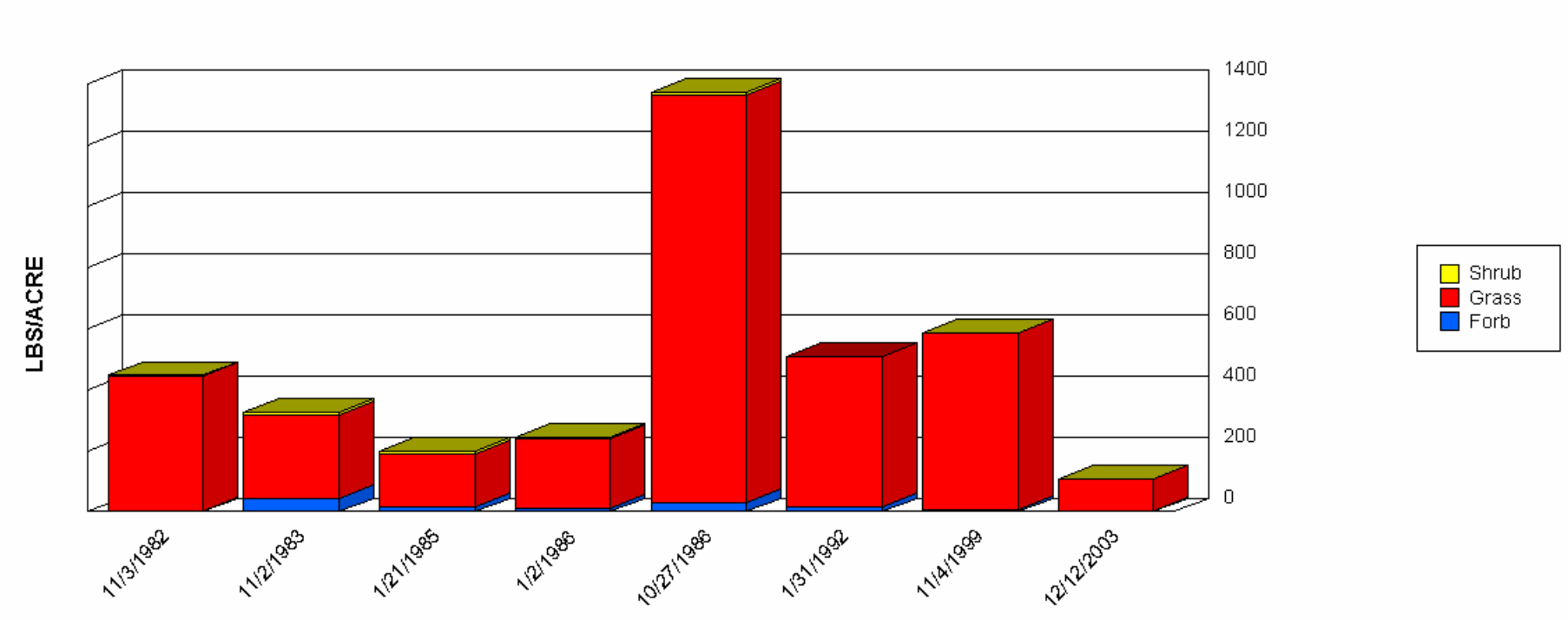
Report Parameters	
SITE NAME LIKE	64073-PRICE HENRY-F250
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004
MIN LBS TO GRAPH	1
SELECTED ECOSITE	042CY007NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	HIMU2	315	360	100.30	801.24	299.72	213.42
1	Grass	SCBR2	315	360	7.71	295.39	91.20	88.23
2	Grass	BOGR2	225	270	0.00	5.28	1.06	2.11
7	Grass	ARIST	27	45	0.00	69.97	11.61	22.62
7	Grass	SPCR	27	45	0.00	64.68	14.71	23.03
8	Grass	PAOB	9	27	0.00	15.00	4.38	5.98
9	Grass	MUAR	27	45	0.00	52.00	15.19	18.18
9	Grass	MUAR2	27	45	0.00	6.90	1.29	2.40
12	Grass	PAHA	9	18	0.00	21.00	3.51	6.80
14	Grass	TRMU	9	27	0.00	62.72	11.81	21.89
15	Grass	TRPI2	0	9	0.00	10.00	3.90	3.90
17	Grass	BUDA	9	27	0.00	2.47	0.82	1.16
17	Grass	ERPU8	9	27	0.00	5.13	1.02	1.82
17	Grass	LYPH	9	27	0.00	1.71	0.57	0.80
18	Forb	SPHAE	9	27	0.00	2.96	0.59	1.18
18	Forb	VERBE	9	27	0.00	2.82	0.47	1.05
19	Forb	CROTO	9	27	0.00	3.76	0.69	1.38
19	Forb	CRPO5	9	27	0.00	1.48	0.30	0.59
19	Forb	LEFE	9	27	0.00	1.48	0.30	0.59
19	Forb	LESQU	9	27	0.00	6.96	1.16	2.59
19	Forb	PENA	9	27	0.00	2.52	0.75	1.11
19	Forb	SENEC	9	27	0.00	7.84	1.96	3.39
21	Forb	ERTE13	9	27	0.00	9.00	2.14	2.99
22	Forb	AAFF	9	27	0.00	12.00	6.00	3.99
22	Forb	CIRSI	9	27	0.00	15.54	5.18	7.33
22	Forb	ZINNI	9	27	0.00	1.26	0.21	0.47

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
23	Forb	AMBRO	9	27	0.00	9.40	1.40	3.27
24	Forb	COCA2	9	27	0.00	1.20	0.20	0.45
24	Forb	MELE2	9	27	0.00	7.56	1.26	2.82
24	Forb	SOEL	9	27	0.00	1.20	0.22	0.42
26	Shrub	GUSA2	9	27	0.00	8.80	2.29	3.12
26	Shrub	OPUNT	9	27	0.00	8.00	2.33	3.35



Production Lbs/Acre Trends

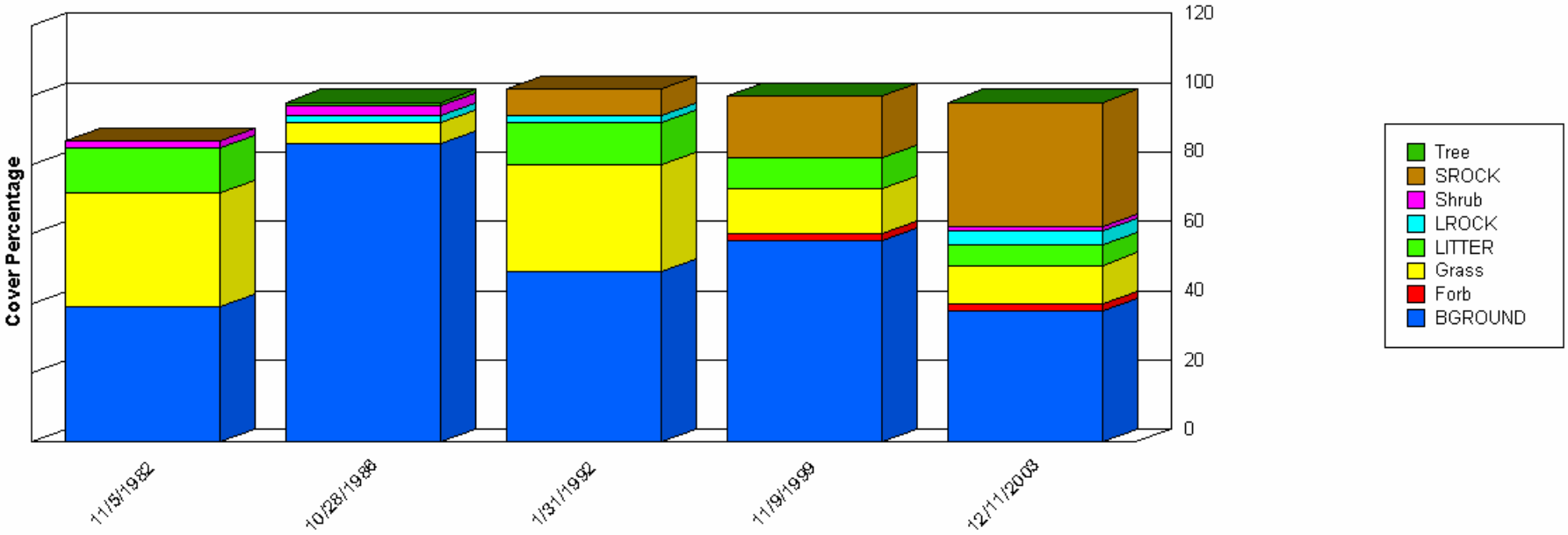


	11/3/1982	11/2/1983	1/21/1985	1/2/1986	10/27/1986	1/31/1992	11/4/1999	12/12/2003
Forb	**3.00**	**45.00**	**17.00**	**10.00**	**28.00**	**14.00**	**8.00**	**0.33**
Grass	**440.00**	**273.00**	**171.00**	**231.00**	**1,335.00**	**495.00**	**579.00**	**108.01**
Shrub	**3.00**	**6.00**	**9.00**	**4.00**	**8.00**	**0.00**	**0.00**	**0.67**
Total	**446.00**	**324.00**	**197.00**	**245.00**	**1,371.00**	**509.00**	**587.00**	**109.01**

Report Parameters

SITE NAME LIKE	64073-PRICE HENRY-F250
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Ground Cover Trends



	11/5/1982	10/28/1986	1/31/1992	11/9/1999	12/11/2003
BGROUND	39.00	86.00	49.00	58.00	38.00
Forb	0.00	0.00	0.00	2.00	2.00
Grass	33.00	6.00	31.00	13.00	11.00
LITTER	13.00	0.00	12.00	9.00	6.00
LROCK	0.00	2.00	2.00	0.00	4.00
Shrub	2.00	3.00	0.00	0.00	1.00
SROCK	0.00	0.00	8.00	18.00	36.00

	11/5/1982	10/28/1986	1/31/1992	11/9/1999	12/11/2003
Tree	0.00	1.00	0.00	0.00	0.00
Total	87.00	98.00	102.00	100.00	98.00

Report Parameters

SITE NAME LIKE	64073-W RIVER-F253
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

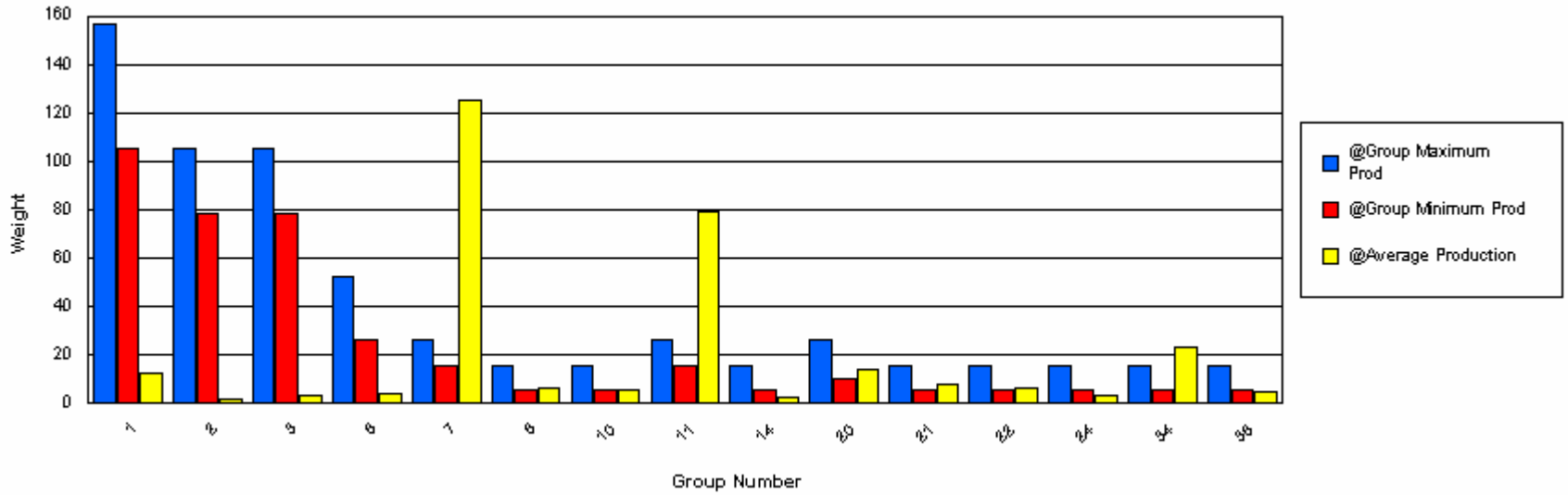
Functional / Structural Groups

Report Parameters	
SITE NAME LIKE	64073-W RIVER-F253
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004
MIN LBS TO GRAPH	1
SELECTED ECOSITE	042CY025NM

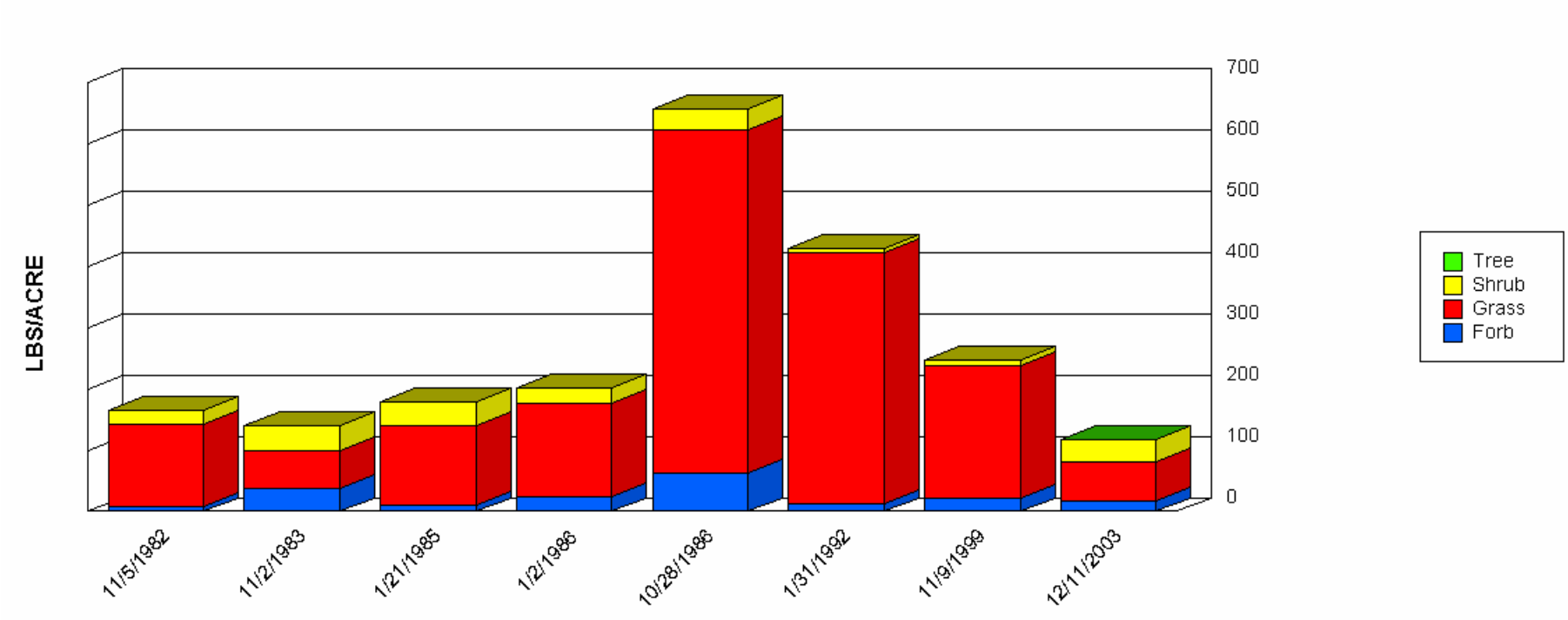
Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	105	157	0.00	39.00	11.99	13.53
2	Grass	BOCU	78	105	0.00	6.00	1.80	2.40
3	Grass	BOGR2	78	105	0.00	16.00	2.87	5.44
3	Grass	BOHI2	78	105	0.00	2.60	0.55	0.94
6	Grass	SPCR	26	52	0.00	5.33	3.08	1.97
6	Grass	SPFL2	26	52	0.00	3.31	0.47	1.16
7	Grass	TRMU	15	26	0.61	194.99	76.76	74.66
7	Grass	TRPI2	15	26	0.00	117.33	48.69	34.98
8	Grass	MUAR	5	15	0.00	17.49	6.35	6.29
10	Grass	ERPU8	5	15	0.00	22.00	5.05	6.56
11	Grass	ARIST	15	26	0.00	204.80	35.66	64.63
11	Grass	HIMU2	15	26	3.12	44.66	16.04	13.53
11	Grass	MUAR2	15	26	0.00	11.00	3.01	4.32
11	Grass	SCBR2	15	26	0.00	53.39	24.51	19.51
11	Grass	SELO2	15	26	0.00	0.17	0.02	0.06
12	Grass	AAGG	0	5	0.00	0.62	0.09	0.22
14	Grass	ENDE	5	15	0.00	3.00	0.79	1.17
14	Grass	LYPH	5	15	0.00	0.41	0.14	0.19
14	Grass	MUTO2	5	15	0.00	1.68	0.28	0.63
14	Grass	PAHA	5	15	0.00	1.19	0.34	0.53
14	Grass	TRAL2	5	15	0.00	6.20	0.89	2.17
16	Forb	SENEC	5	15	0.00	1.12	0.28	0.48
17	Forb	SPHAE	5	15	0.00	0.31	0.04	0.11
18	Forb	LESQU	5	15	0.00	1.16	0.19	0.43
20	Forb	CROTO	10	26	0.00	32.63	12.37	9.68
20	Forb	CRPO5	10	26	0.00	2.96	0.59	1.18

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
20	Forb	ZIGR	10	26	0.00	3.31	1.11	1.35
21	Forb	AAFF	5	15	0.76	14.31	4.12	4.40
21	Forb	ABUTI	5	15	0.00	0.37	0.05	0.13
21	Forb	COLDE	5	15	0.00	8.43	2.81	3.98
21	Forb	DEPI	5	15	0.00	2.32	0.39	0.86
21	Forb	EUPHO	5	15	0.00	0.25	0.08	0.12
22	Forb	ERTE13	5	15	0.00	14.10	2.49	4.46
22	Forb	HOGL2	5	15	0.00	1.88	0.69	0.81
22	Forb	MELE2	5	15	0.00	1.10	0.26	0.43
22	Forb	PPFF	5	15	0.00	4.70	1.35	1.94
22	Forb	SELO	5	15	0.00	2.93	0.98	1.38
22	Forb	SOEL	5	15	0.00	1.00	0.28	0.44
22	Forb	ZINNI	5	15	0.00	2.52	0.42	0.94
24	Shrub	RHMI3	5	15	0.00	18.36	2.79	6.37
34	Shrub	GUSA2	5	15	7.57	38.72	23.31	9.44
36	Shrub	ACACI	5	15	0.00	2.64	0.38	0.92
36	Shrub	COCA17	5	15	0.00	12.60	1.96	4.36
36	Shrub	DAFO	5	15	0.00	3.04	1.16	1.22
36	Shrub	DALEA	5	15	0.00	0.26	0.13	0.13
36	Shrub	PPSS	5	15	0.00	1.33	0.67	0.67

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV



Production Lbs/Acre Trends

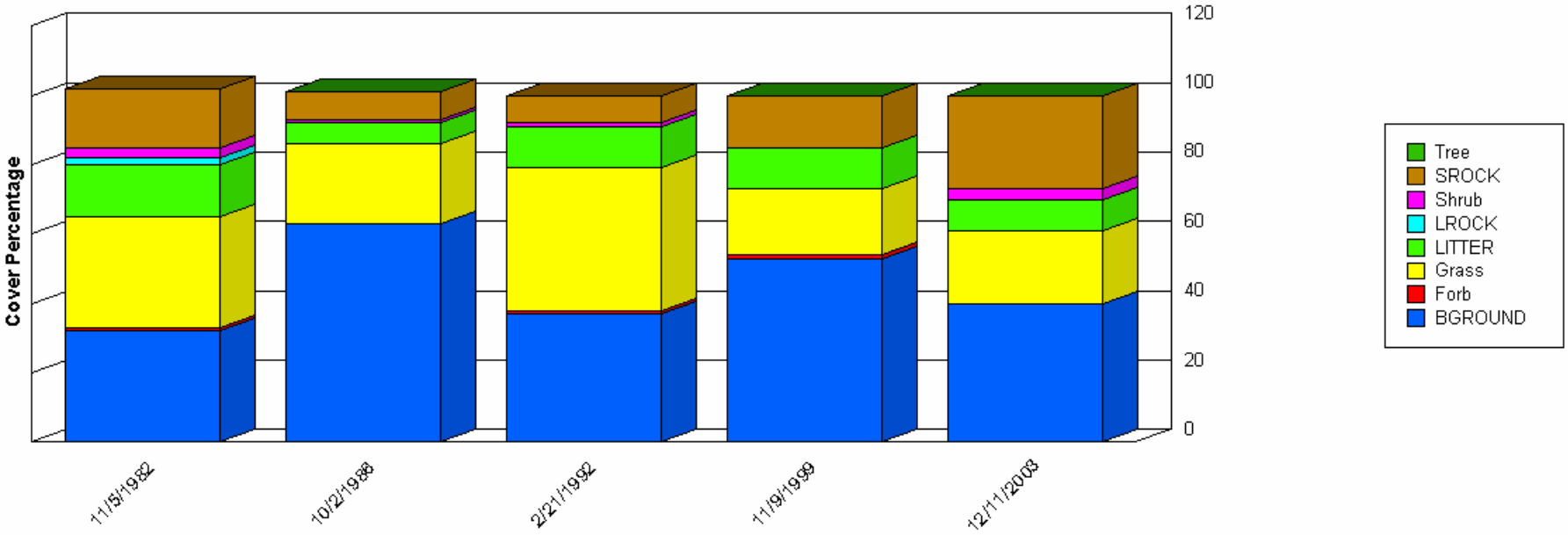


	11/5/1982	11/2/1983	1/21/1985	1/2/1986	10/28/1986	1/31/1992	11/9/1999	12/11/2003
Forb	**9.00**	**38.00**	**11.00**	**24.00**	**62.00**	**12.00**	**21.00**	**17.66**
Grass	**133.00**	**62.00**	**128.00**	**153.00**	**560.00**	**410.00**	**216.00**	**63.22**
Shrub	**23.00**	**41.00**	**39.00**	**25.00**	**34.00**	**6.00**	**9.00**	**36.70**
Tree	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.67**
Total	**165.00**	**141.00**	**178.00**	**202.00**	**656.00**	**428.00**	**246.00**	**118.25**

Report Parameters

SITE NAME LIKE	64073-W RIVER-F253
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Ground Cover Trends



	11/5/1982	10/2/1986	2/21/1992	11/9/1999	12/11/2003
BGROUND	32.00	63.00	37.00	53.00	40.00
Forb	1.00	0.00	1.00	1.00	0.00
Grass	32.00	23.00	41.00	19.00	21.00
LITTER	15.00	6.00	12.00	12.00	9.00
LROCK	2.00	0.00	0.00	0.00	0.00
Shrub	3.00	1.00	1.00	0.00	3.00
SROCK	17.00	8.00	8.00	15.00	27.00

	11/5/1982	10/2/1986	2/21/1992	11/9/1999	12/11/2003
Tree	0.00	0.00	0.00	0.00	0.00
Total	102.00	101.00	100.00	100.00	100.00

Report Parameters

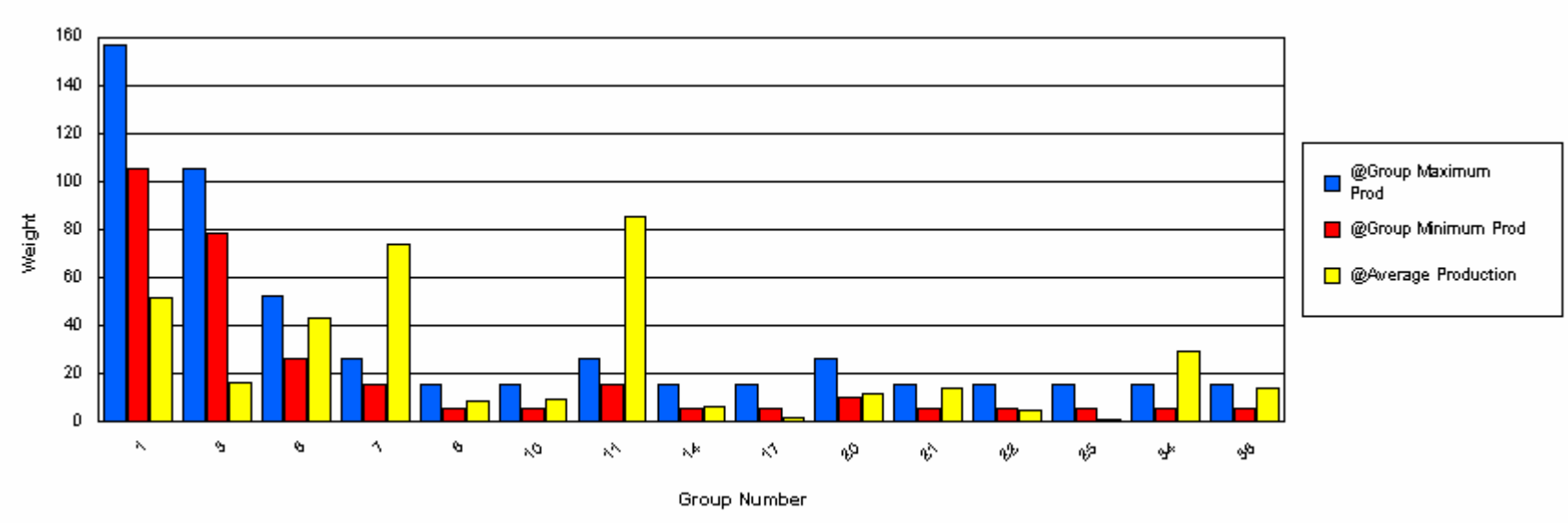
SITE NAME LIKE	64073-WEST-F254
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Functional / Structural Groups

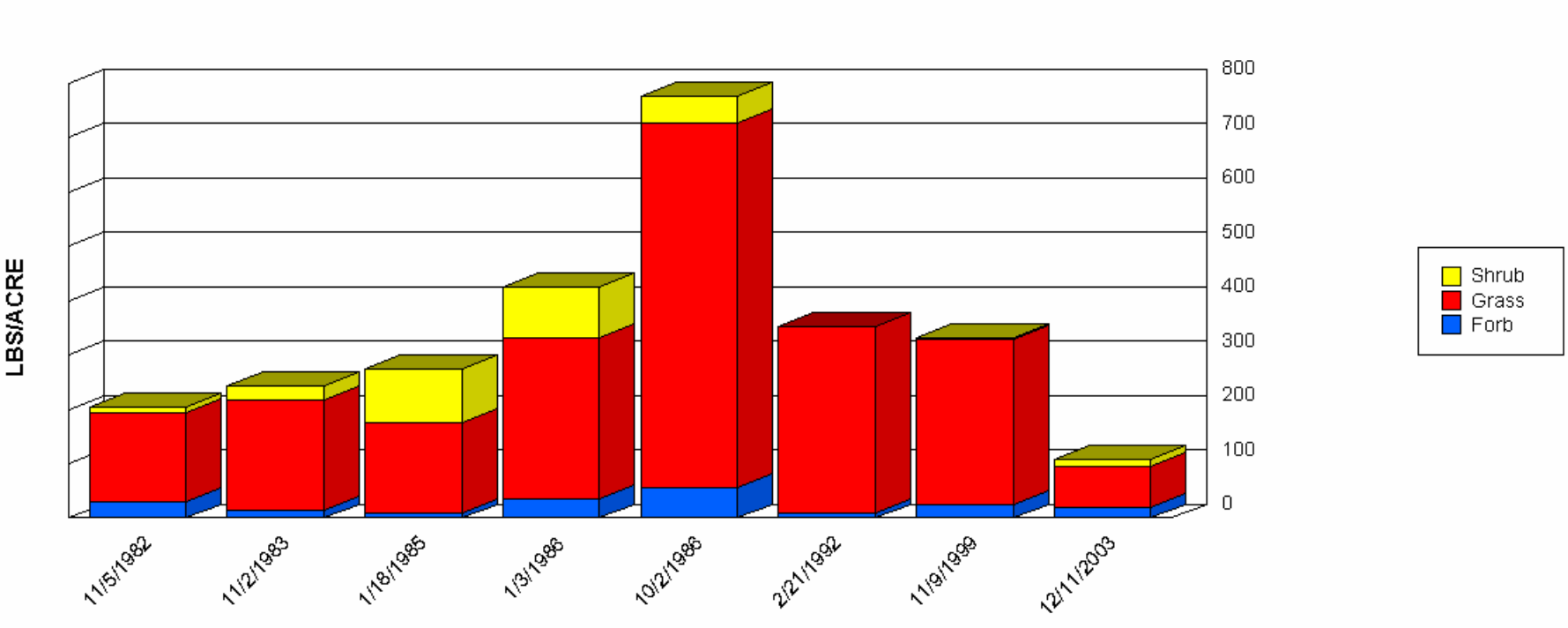
Report Parameters	
SITE NAME LIKE	64073-WEST-F254
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004
MIN LBS TO GRAPH	1
SELECTED ECOSITE	042CY025NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	105	157	17.57	107.80	51.55	27.41
3	Grass	BOGR2	78	105	0.00	44.73	14.52	16.19
3	Grass	BOHI2	78	105	0.00	8.00	1.84	2.79
6	Grass	SPCR	26	52	0.00	127.60	43.38	37.91
7	Grass	TRIDE	15	26	0.00	31.15	10.38	14.68
7	Grass	TRMU	15	26	0.00	135.68	47.20	40.03
7	Grass	TRPI2	15	26	0.00	42.00	16.28	15.57
8	Grass	MUAR	5	15	0.00	28.00	8.70	11.37
10	Grass	ERPU8	5	15	0.00	37.00	9.09	11.27
11	Grass	ARIST	15	26	0.00	120.75	33.38	39.34
11	Grass	HIMU2	15	26	0.00	90.48	36.54	28.96
11	Grass	MUAR2	15	26	0.00	34.76	10.74	13.32
11	Grass	SCBR2	15	26	0.00	20.02	4.31	6.51
12	Grass	AAGG	0	5	0.00	0.62	0.09	0.22
14	Grass	EROX	5	15	0.00	1.88	0.31	0.70
14	Grass	PAHA	5	15	0.00	0.59	0.16	0.26
14	Grass	TRAL2	5	15	0.00	23.70	5.42	8.94
17	Forb	SPHAE	5	15	0.00	5.50	1.63	2.24
20	Forb	CROTO	10	26	0.00	32.27	9.73	10.54
20	Forb	CRPO5	10	26	0.00	7.40	1.48	2.96
21	Forb	AAFF	5	15	0.00	19.49	7.01	6.22
21	Forb	COLDE	5	15	0.00	23.10	4.90	8.37
21	Forb	DYPA	5	15	0.00	0.73	0.10	0.26
21	Forb	DYPE	5	15	0.00	0.25	0.08	0.12
21	Forb	DYSSO	5	15	0.00	5.60	1.40	2.42
22	Forb	AMBRO	5	15	0.00	0.94	0.16	0.35

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
22	Forb	ASTRA	5	15	0.00	1.48	0.30	0.59
22	Forb	ERTE13	5	15	0.00	3.04	0.66	1.12
22	Forb	LEER	5	15	0.00	1.48	0.30	0.59
22	Forb	MELE2	5	15	0.00	3.36	0.53	1.16
22	Forb	PPFF	5	15	2.34	2.61	2.48	0.14
22	Forb	SOEL	5	15	0.00	1.16	0.19	0.43
25	Shrub	LATR2	5	15	1.08	1.14	1.11	0.03
31	Shrub	MIBI3	5	15	0.00	1.06	0.35	0.50
32	Shrub	OPUNT	5	15	0.00	2.67	0.89	1.26
34	Shrub	GUSA2	5	15	2.37	94.90	29.47	36.74
36	Shrub	COCA17	5	15	0.00	43.46	13.45	15.83



Production Lbs/Acre Trends

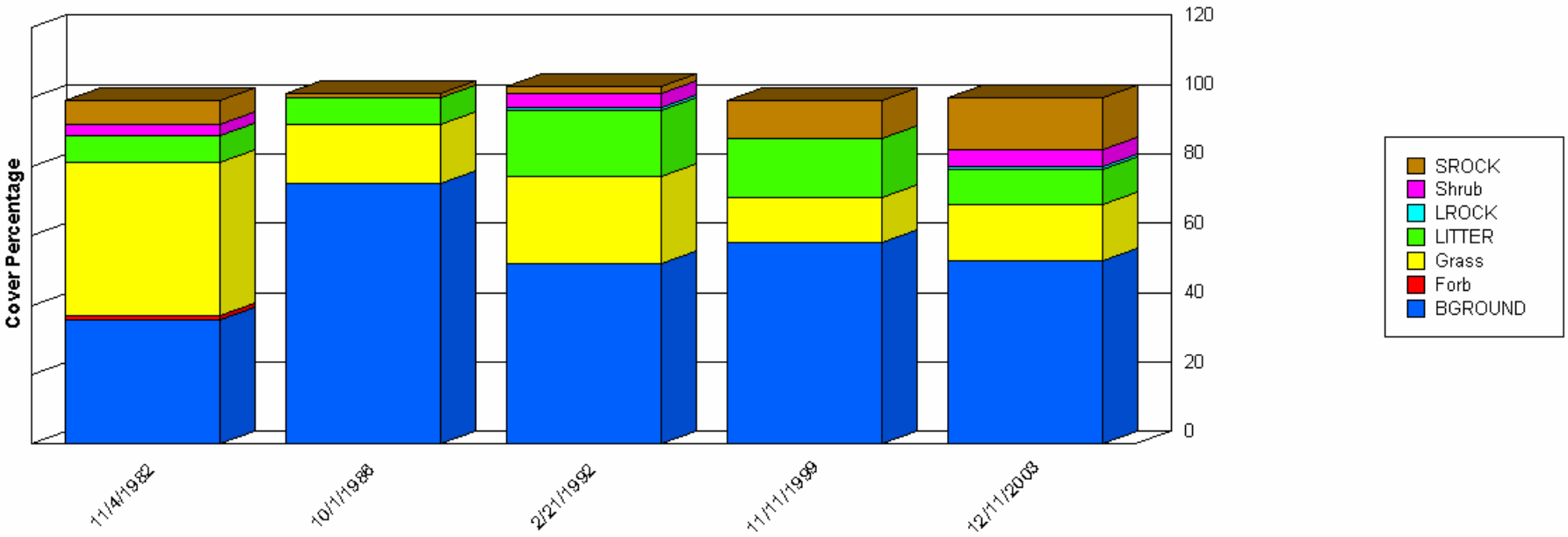


	11/5/1982	11/2/1983	1/18/1985	1/3/1986	10/2/1986	2/21/1992	11/9/1999	12/11/2003
Forb	**30.00**	**14.00**	**9.00**	**35.00**	**57.00**	**10.00**	**25.00**	**20.28**
Grass	**164.00**	**203.00**	**166.00**	**296.00**	**669.00**	**343.00**	**304.00**	**75.71**
Shrub	**11.00**	**25.00**	**100.00**	**95.00**	**51.00**	**0.00**	**3.00**	**12.24**
Total	**205.00**	**242.00**	**275.00**	**426.00**	**777.00**	**353.00**	**332.00**	**108.23**

Report Parameters

SITE NAME LIKE	64073-WEST-F254
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Ground Cover Trends



	11/4/1982	10/1/1986	2/21/1992	11/11/1999	12/11/2003
BGROUND	36.00	75.00	52.00	58.00	53.00
Forb	1.00	0.00	0.00	0.00	0.00
Grass	44.00	17.00	25.00	13.00	16.00
LITTER	8.00	8.00	19.00	17.00	10.00
LROCK	0.00	0.00	1.00	0.00	1.00
Shrub	3.00	0.00	4.00	0.00	5.00
SROCK	7.00	1.00	2.00	11.00	15.00

	11/4/1982	10/1/1986	2/21/1992	11/11/1999	12/11/2003
Total	99.00	101.00	103.00	99.00	100.00

Report Parameters

SITE NAME LIKE	64073-WHITE-F255
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

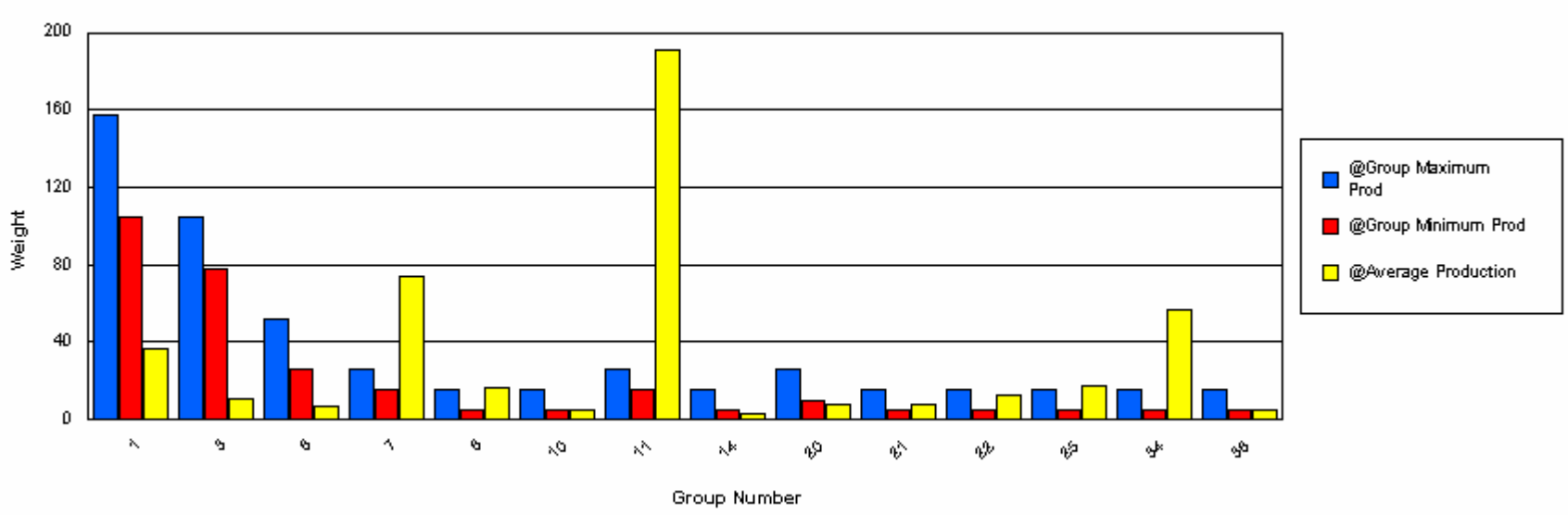
Functional / Structural Groups

Report Parameters

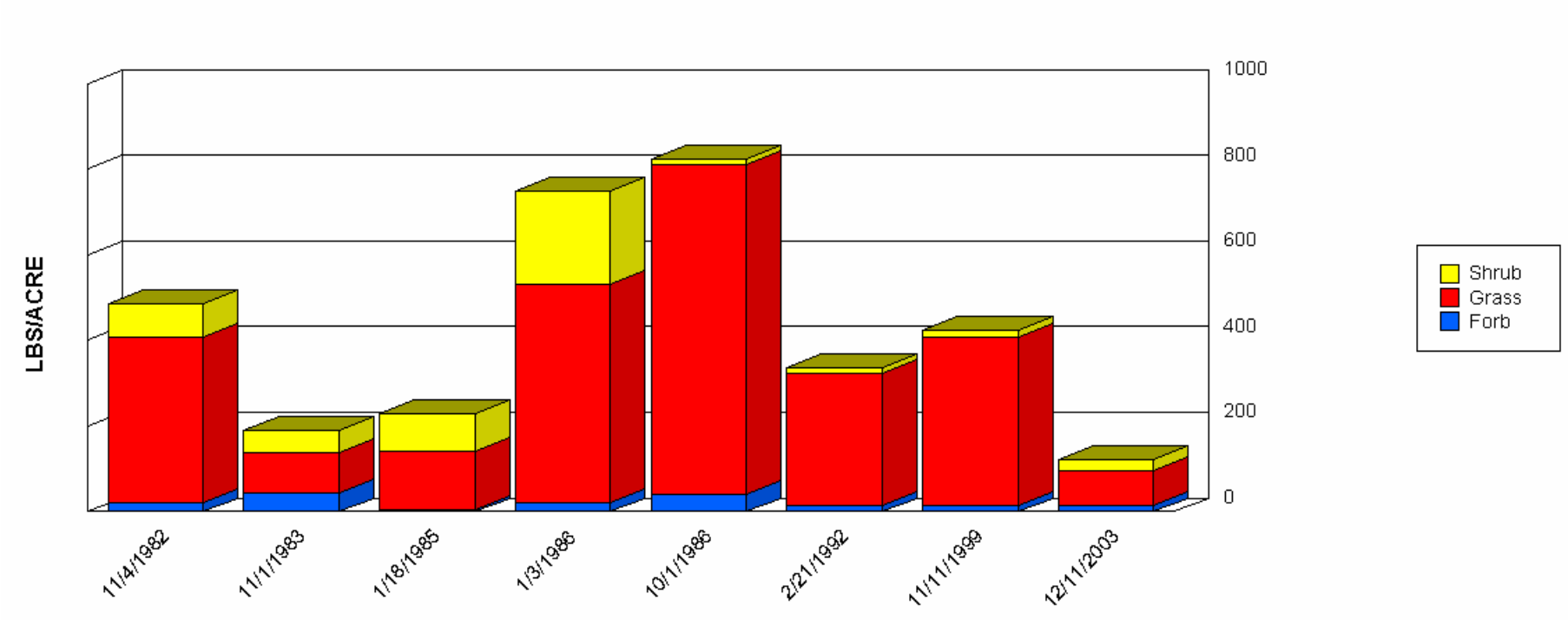
SITE NAME LIKE	64073-WHITE-F255
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004
MIN LBS TO GRAPH	1
SELECTED ECOSITE	042CY025NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	BOER4	105	157	0.00	88.53	36.75	29.07
3	Grass	BOGR2	78	105	0.00	36.00	10.83	12.32
6	Grass	SPCR	26	52	0.00	28.00	7.14	8.79
7	Grass	TRIDE	15	26	0.00	0.43	0.14	0.20
7	Grass	TRMU	15	26	0.00	221.01	55.14	76.08
7	Grass	TRPI2	15	26	0.00	46.48	18.46	19.18
8	Grass	MUAR	5	15	0.00	37.00	16.12	12.27
10	Grass	ERPU8	5	15	0.00	10.20	4.42	3.99
11	Grass	ARIST	15	26	0.00	22.20	7.15	7.52
11	Grass	HIMU2	15	26	18.00	370.92	138.58	111.45
11	Grass	MUAR2	15	26	0.00	34.96	8.39	10.89
11	Grass	PAOB	15	26	0.00	16.80	5.60	7.92
11	Grass	SCBR2	15	26	7.10	50.40	30.92	16.45
12	Grass	AAGG	0	5	0.00	1.24	0.18	0.43
14	Grass	ENDE	5	15	0.00	3.00	0.79	1.17
14	Grass	PAHA	5	15	0.00	8.51	1.64	2.98
14	Grass	TRAL2	5	15	0.00	1.24	0.18	0.43
18	Forb	LESQU	5	15	0.00	2.32	0.39	0.86
20	Forb	CROTO	10	26	0.00	19.73	7.26	7.42
20	Forb	CRPO5	10	26	0.00	1.48	0.30	0.59
21	Forb	AAFF	5	15	0.00	19.98	4.47	6.07
21	Forb	COLDE	5	15	0.00	19.43	2.78	6.80
22	Forb	AMBRO	5	15	0.00	7.52	1.25	2.80
22	Forb	CODE3	5	15	0.00	3.36	0.84	1.45
22	Forb	ERODI	5	15	0.00	2.20	0.31	0.77
22	Forb	ERTE13	5	15	0.00	26.32	5.83	8.95

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
22	Forb	HOGL2	5	15	0.00	2.47	0.54	0.85
22	Forb	HOJA	5	15	0.00	0.49	0.16	0.23
22	Forb	MELE2	5	15	0.00	3.48	0.58	1.30
22	Forb	PPFF	5	15	0.65	3.64	2.15	1.49
22	Forb	ZINNI	5	15	0.00	2.52	0.42	0.94
25	Shrub	LADI2	5	15	0.00	28.32	5.42	9.03
25	Shrub	LATR2	5	15	11.34	12.16	11.75	0.41
32	Shrub	OPUNT	5	15	0.00	1.33	0.67	0.67
34	Shrub	GUSA2	5	15	0.00	219.00	56.72	71.10
36	Shrub	COCA17	5	15	0.00	12.64	4.51	5.59



Production Lbs/Acre Trends



	11/4/1982	11/1/1983	1/18/1985	1/3/1986	10/1/1986	2/21/1992	11/11/1999	12/11/2003
Forb	**22.00**	**44.00**	**5.00**	**22.00**	**42.00**	**14.00**	**15.00**	**14.20**
Grass	**386.00**	**93.00**	**137.00**	**509.00**	**769.00**	**309.00**	**392.00**	**80.41**
Shrub	**77.00**	**53.00**	**87.00**	**219.00**	**13.00**	**12.00**	**18.00**	**26.62**
Total	**485.00**	**190.00**	**229.00**	**750.00**	**824.00**	**335.00**	**425.00**	**121.23**

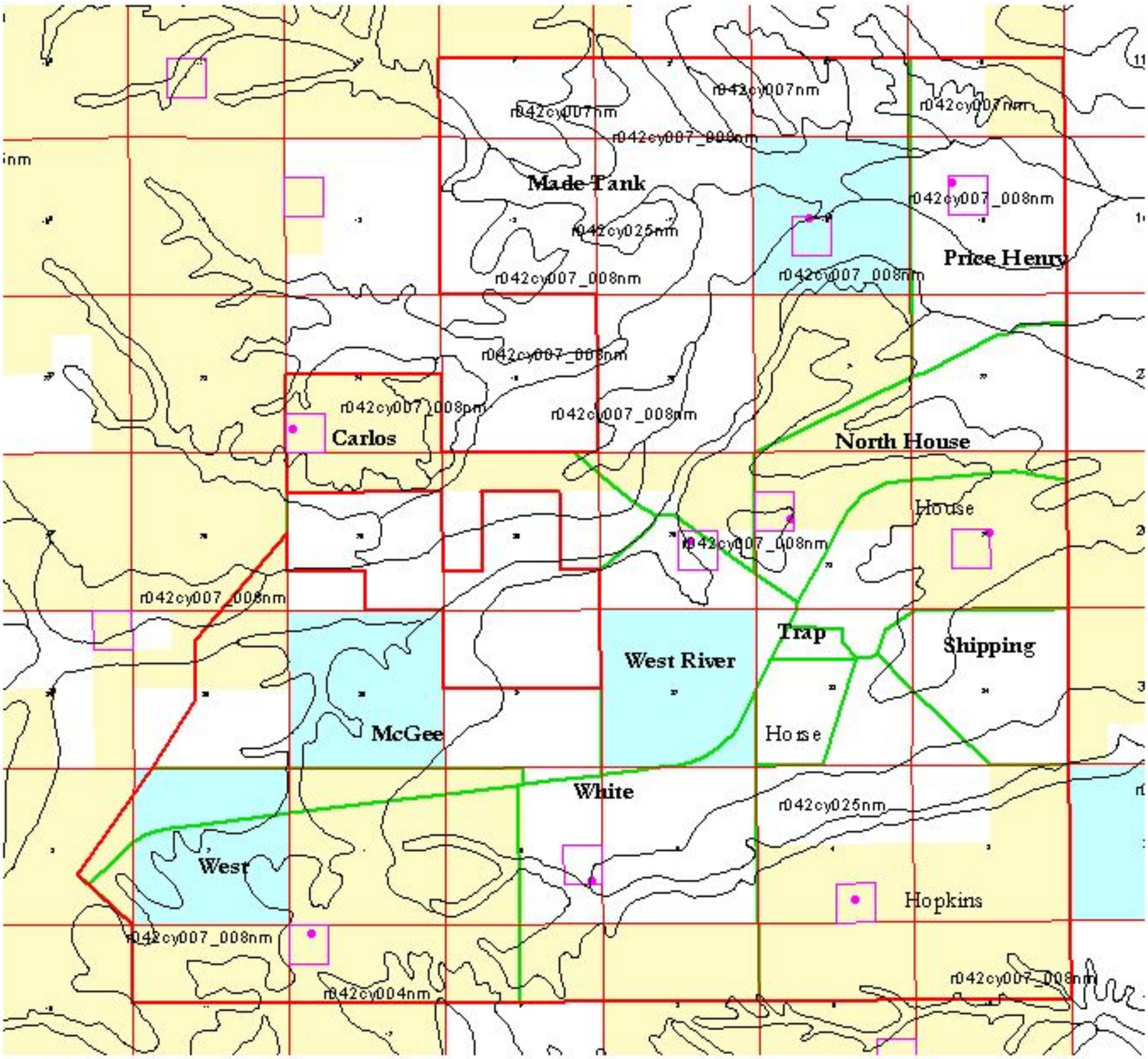
Report Parameters

SITE NAME LIKE	64073-WHITE-F255
ON/AFTER	10/01/1982
ON/BEFORE	09/30/2004

Rangeland Health Assessment
Ecological Sites

Allotment 64073

T14.R22E



T15S.R23E

1 0 1 Miles

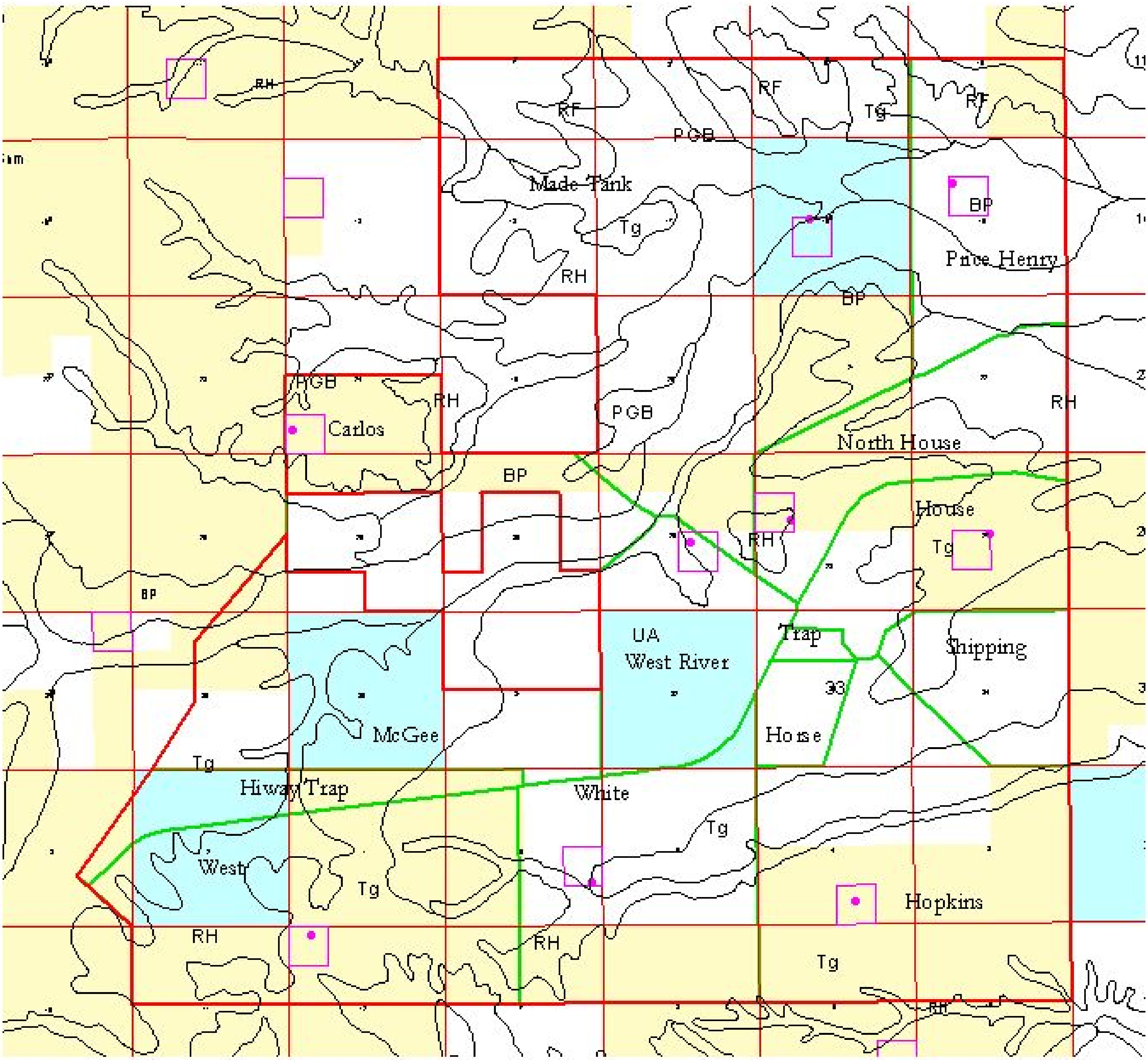
Public
Study Plots
State
Private
Study Locations
Pasture Boundary
Ecological Sites
Allotment Boundary

Produced by the Roswell Field Office
GIS Intern on July 24, 2003.

Rangeland Health Assessment
Soil Mapping Units

Allotment 64073

T14.R22E



T15S.R23E

1 0 1 Miles

Public
Study Plots
State
Private
Study Locations

Pasture Boundary
Soil Mapping Units
Allotment Boundary

Produced by the Roswell Field Office GIS Intern on July 24, 2003.